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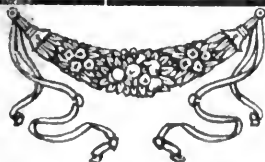
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LITTLE ROCK PUBLIC SCHOOLS
DEPARTMENT OF HOUSEHOLD ARTS

**COURSE of LESSONS
IN
DOMESTIC SCIENCE**



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LITTLE ROCK PUBLIC SCHOOLS

Department of Household Arts

Course of Lessons in Domestic Science



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Course of Lessons in Domestic Science

INTRODUCTION

Food is that which, when taken into the body, builds and repairs the tissues and furnishes heat and energy to the body.

The chemical substances of which the body is composed are very similar to the composition of the foods which nourish it.

From fifteen to twenty elements are found in food and in the body, the most important of which are carbon, hydrogen, oxygen, nitrogen, calcium, phosphorus, and sulphur.

Food is classified according to its chemical composition into the following groups: Proteins, carbohydrates, fats and oils, and mineral matter.

Food principle is the term applied to these classes into which foodstuffs are divided.

PROTEINS

Protein is that food principle that contains carbon, hydrogen, oxygen, and nitrogen. It is derived from animal and vegetable sources, builds tissue and repairs waste, and yields a certain amount of heat and energy. Found in meat, fish, eggs, milk, peas, beans, and grains.

CARBOHYDRATES

Carbohydrates is that food principle that contains carbon, hydrogen, and oxygen. It is derived from vegetable sources and yields heat and energy.

FATS AND OILS

Fats and oils contain the same elements as carbohydrates but in different proportions. They also furnish heat and energy and constitute the fatty tissues of the body. They are derived from animal and vegetable sources.

MINERAL MATTER

Mineral matter includes compounds of lime, sodium, iron, etc. It occurs in all articles of food, principally in fruits, meats, vegetables, and small amounts are found in cereals and grains. It is essential to life, is necessary in the blood, and aids digestion. The most common being sodium chloride which is taken into the body in the simple form of table salt.

LESSON 1

CARE OF THE KITCHEN

- 1 Work quietly.
- 2 Work neatly, keep things picked up and unnecessary things out of the way.
- 3 Do not allow wooden handles of knives, forks, etc., in hot water.
- 4 Do not put the wheel of the dover egg beater in water, wipe it on the dish cloth and allow it to dry.
- 5 Wipe sauce pans and dish pans on the dish cloth, not on dish towel.
- 6 Wash dish cloth in hot water, rinse in cold water. Hang both dish cloth and dish towel on rack before leaving the room.
- 7 Before leaving the room see that the stove and the top of the desk, the soap and match dishes are clean. See that all articles are in the desk. Keep knives free from stain. If they are stained rub a little Sapolio on the dish cloth and rub them with that. Never rub knives or anything with the cake of Sapolio.

CARE OF REFRIGERATOR

The waste pipe of the refrigerator or ice box should empty into a pan or into the open end of a properly trapped drain pipe; it should never be continuous with the drain pipe, such an arrangement making easy the passage of sewer gas into the refrigerator.

Keep the inside of the food chamber dry. See that no food remains in the refrigerator long enough to spoil. Empty the pan, if there is one, every day.

Clean the refrigerator at least once a week. Take out both food and ice. Wash shelves and racks with hot soap suds or with a sal-soda solution, and rinse with clear water. Dry them in the open air or by the fire. Wash inside walls the same way. Clean the grooves and corners with a skewer, and run a wire with a cloth wrapped around it down the waste pipe. Rinse the pipe with hot sal-soda solution. Wipe the refrigerator dry.

CARE OF THE SINK

When dish washing is finished, wash every part of the sink with hot, soapy water. Wash above and around the sink.

Flush the sink with boiling water every day and about once a week with a strong solution of washing soda.

DISH WASHING

Directions—

- 1 Have the dishes scraped.
- 2 Pile all articles of each kind together; plates by themselves, the largest at the bottom; cups by themselves; silver articles together, and steel knives and forks to themselves.
- 3 Use hot soapy water.

Soaking Dishes—

Cold water should be used for soaking dishes which have been used for milk, eggs, and starchy foods. Hot water for dishes used for sugar substances and for sticky, gummy substances like gelatine. Greasy dishes of all kinds, including knives, are more easily cleaned if first wiped with soft paper, which should be burned.

Order—

Glassware
Silverware
Cups and saucers
Plates
Platters
Vegetable dishes
Cooking utensils

LESSON 2

Cooking is the preparation of food by the application of heat.

- 1 By direct application of heat, as broiling, toasting.
- 2 By means of heated air, as: baking.
- 3 By means of moisture, as:
 - (a) Boiling water
 - (b) Stewing, just below the boiling point.
 - (c) Steaming, either with a steamer that comes into direct contact, or a double boiler with the metal between the steam and the food which is known as dry steam.
- 4 By means of heated fat, as:
 - (a) Frying, immersed in fat.
 - (b) Saute, frying by means of a small amount of fat.

- 5 By means of heated metal, as: pan broiling.
- 6 By braising, as: a combination of stewing and baking.
first stew and then brown in the oven.
- 7 Fricassee: a combination of saute and stewing.

ABBREVIATIONS

ssp	.....	saltspoon
t	.....	teaspoon
T	.....	tablespoon
c	.....	cup
qt	.....	quart
pt	.....	pint
rt	.....	rounding teaspoon
ht	.....	heaping teaspoon

EQUIVALENTS

3t	.....	1T
16T	.....	1c
2c	.....	1 pt
2pt	.....	1 qt
2c butter (packed)	.....	1 pound
4c flour	.....	1 pound
2c sugar	.....	1 pound
2c chopped meat	.....	1 pound
8 eggs	.....	1 pound
1 yolk of egg	.....	3t
1 white of egg	.....	6t
2T butter	.....	1 ounce
4T flour	.....	1 ounce
2c fruit	.....	1 pound

LESSON 3

VEGETABLES

Vegetables include, commonly speaking, all plants used for food. They are classified according to the parts used, as:

- 1 Tubers—potatoes, artichokes.
- 2 Roots—parsnips, carrots, beets.
- 3 Bulb—onion.
- 4 Stems—celery, asparagus.
- 5 Leaves—lettuce, cabbage, greens, spinach, mustard, etc.
- 6 Flower—cauliflower.
- 7 Fruit—squash, tomatoes, string beans, pumpkin.
- 8 Seed—beans, peas, corn.

EXPERIMENTS WITH THE POTATO

- 1 Wash the potato. Cut in two transversely and put in cold water.
- 2 Pare one half, grate into a bowl. Taste.
- 3 Wash grated portion through cheesecloth, saving the liquid, allow to settle.
- 4 Pour off the liquid and test the residue with iodine.
- 5 Cut a thin section from the other half, examine by holding up to the light. Draw what you see.
- 6 Boil a piece of the remainder 20 minutes. Taste. Note changes which have occurred.
- 7 Observe under micro starch grains of cooked and uncooked potato.

LESSON 4

THE POTATO

The potato is considered a type vegetable. It is cheap, easily raised, easily digested, wholesome, and nutritious.

CHANGES A POTATO UNDERGOES IN COOKING

Absorbs water
Breaks cellulose walls
Made more digestible
Improves flavor

BOILED POTATOES

Materials

6 potatoes
boiling water
1T salt

Method—

- 1 Wash with a brush. Pare thin, removing the eyes.
- 2 Drop into boiling water, boil gently until readily pierced with a fork, adding salt at the end of the first 10 minutes.
- 3 Drain off all the water, return to the stove and evaporate the remaining moisture.
- 4 Serve on open dish.

MASHED POTATOES

Materials

6 potatoes
boiling water
1T salt
6T milk
3T butter
1/2t salt (if needed)

Method

- 1 Same as for boiled potatoes.
- 2 Mash boiled potatoes until all lumps are removed.
- 3 Heat milk with other ingredients and add to the potato, beating with a fork until light.
- 4 Pile lightly on a dish and sprinkle with pepper.

POTATO CAKES

Shape cold mashed potatoes into small cakes. Put on a greased pan, brush with milk and bake until a golden brown.

STUFFED BAKED POTATOES

Materials—

6 baked potatoes

6T milk

3T butter

1 t salt

2 eggs

Note—eggs may be omitted or only the whites used.

Method

- 1 Wash potato, place in pan in hot oven, bake until soft when pressed between thumb and finger.
- 2 Heat milk, add seasoning and eggs slightly beaten.
- 3 Cut top from potato, scoop out the inside, mash thoroughly.
- 4 Add seasoning mixture and heat until light.
- 5 Refill the shells and replace in the oven until slightly brown on top.

Note Grated cheese over the top before browning adds to the flavor.

GLAZED SWEET POTATOES

Materials —

- 6 medium sized potatoes
- $\frac{1}{2}$ c sugar
- $\frac{1}{2}$ c water
- 1T butter
- $\frac{1}{2}$ t salt

Method —

- 1 Wash and pare potatoes.
- 2 Cook 10 min. in boiling salt water.
- 3 Drain, cut in two lengthwise, place in buttered pan.
- 4 Make a syrup by boiling the sugar and water 3 min.
- 5 Add butter, pour over potatoes and bake until soft, basting with syrup.

BAKED APPLES

Materials

- 1 apple for each student.

Method

- 1 Wipe and core sour apples.
- 2 Place in baking dish, fill cavities with sugar, 1T to each apple
- 3 Cover bottom of dish with boiling water, bake in a hot oven till soft, basting often with syrup.
- 4 Serve hot or cold with syrup or cream as desired.

Note If apples are old add a few grains of cinnamon to the sugar.

LESSON 5

STARCH

Starch is a white glistening powder; it is largely distributed throughout the vegetable kingdom, being found most abundantly in cereals and potatoes. Being a force producer, and heat giver, it forms one of the most important foods. Alone it cannot sustain life, but it must be taken in combination with foods which build and repair tissue.

Under the microscope starch is seen to consist of irregularly shaped granules. Starches from different plants differ from one another, granules of potato starch being larger than those of any other kind and somewhat like oyster shells in shape and markings, while rice starch granules are angular and very small.

EXPERIMENTS WITH STARCH

- 1 Mix 1t of starch with 1T of cold water; stir in $\frac{1}{4}$ c cold water.
- 2 Mix 1t cold water with 1t starch; stir in $\frac{1}{4}$ c boiling water.
- 3 Pour $\frac{1}{4}$ c boiling water on 1t starch and stir.
- 4 Mix 1t starch with 1t of granulated sugar and stir while adding $\frac{1}{4}$ c of boiling water.
- 5 Heat 1t starch without water; stir constantly.

BLANC MANGE

Materials

- $\frac{1}{4}$ c milk
- 8T cornstarch
- $\frac{1}{2}$ c sugar
- $\frac{1}{4}$ t salt
- $\frac{1}{2}$ t vanilla

Method

- 1 Reserve $\frac{1}{4}$ c milk for wetting the cornstarch. Scald remaining milk in double boiler.
- 2 Mix the dry ingredients, add the cold milk and stir until smooth.
- 3 Add wet cornstarch to scalded milk.
- 4 Cook in double boiler, stirring constantly until it thickens.
- 5 Take from the fire, flavor, and pour into cold wet molds to stiffen. Serve with sweetened cream, flavored with nutmeg or vanilla.

CHOCOLATE BLANC MANGE

Same as plain blanc mange adding 4T cocoa or grated chocolate to the other dry ingredients.

NUT BLANC MANGE

Same as plain blanc mange and just before pouring into molds add 1c of nut meats broken in pieces.

LESSON 6

CREAMED DISHES

Creamed dishes are those prepared with white sauce.

RECIPE FOR WHITE SAUCE

- 1 Thin white sauce.
1T butter
1T flour
1c milk
- 2 Medium white sauce.
2T butter
2T flour
1c milk
- 3 Thick white sauce.
3T butter
3T flour
1c milk

1 $\frac{1}{4}$ t salt with each

Method --

- 1 Put butter in sauce pan and stir until melted.
- 2 Add flour mixed with seasoning, stir until smooth.
- 3 Add milk in three portions, stirring until smooth after each addition of milk.

CREAMED CELERY

Materials--

- 2c celery, cut in pieces
- 1c white sauce (No. 3)

Method -

- 1 Wash, scrape, and cut celery stalks into 1-inch pieces.
- 2 Cook until soft in boiling salted water.
- 3 Evaporate water and add to white sauce.
- 4 Serve on buttered toast.

SCALLOPED ONIONS

Cut boiled onion in quarters. Put in a buttered baking dish, cover with white sauce (No. 2), sprinkle with buttered bread crumbs, and brown in the oven.

CREAMED POTATOES

Wash and pare the potatoes. Cut into dice and cook in boiling salted water until tender. Drain. Make white sauce (No. 3) and for each cup of white sauce add 2c of dice. Cold boiled potatoes may be used instead.

LESSON 7

CEREALS

Cereals are cultivated grasses used for food. They rank first among vegetable foods. They include wheat, oats, rye, barley, corn, and rice.

From cereals many preparations are made. From rice is made rice flour; from oats, oatmeal, rolled oats, avena, Quaker oats, etc. From corn are made cornmeal, cornstarch, hominy; from wheat, flour, wheatlet, cracked wheat, etc. Rye is used for rye flakes, meal and flour; barley for flour and pearl barley; buckwheat for flour.

They are composed largely of starch and a form of albumen called gluten.

They contain but little water and hence a large amount of water must be added in the cooking. Raw starch is indigestible, so all foods containing starch should be thoroughly cooked.

BOILED RICE

Materials --

- 1c rice
- 6c boiling water
- 2t salt

Method

- 1 Pick over and wash rice.
- 2 Put water and salt in sauce pan.
- 3 When boiling rapidly add rice, a few grains at a time so as not to stop the boiling.
- 4 Boil rapidly, uncovered, for 20 minutes, stirring occasionally with a fork.
- 5 Test by taking out a few kernels and pressing them between thumb and finger.
- 6 Drain off the water that has not been absorbed.
- 7 May be served with butter, pepper, and salt, as a vegetable or with sugar and cream as a dessert.

Note -- A double boiler may be used but longer time is required.

CREAM OF WHEAT WITH DATES

Materials

- 1c Cream of Wheat
- 6c boiling water
- 1t salt
- 1c dates

Method-

- 1 Add salt to water and slowly add cream of wheat while stirring, using the upper part of the double boiler.
- 2 Cook 5 minutes over direct heat and steam 30 minutes in boiler.
- 3 When ready to serve add dates, washed, seeded, and cut in pieces.
- 4 Mould in cups and serve with cream and sugar.

Note The moulds may be lined with the dates.

This recipe will answer for all forms of rolled oats, etc.

MACARONI WITH CHEESE

Materials—

- $\frac{3}{4}$ c macaroni
- 2qt boiling water
- 1T salt
- $\frac{1}{2}$ c white sauce (No. 2)
- $\frac{1}{4}$ c grated cheese
- Bread crumbs

Method--

- 1 Break macaroni in 1-inch pieces, boil in salted water until tender.
- 2 To white sauce add cheese and allow it to melt below the boiling point.
- 3 Place macaroni in a buttered baking dish, pour cheese sauce over it, sprinkle with bread crumbs and brown in oven.

MACARONI WITH TOMATO SAUCE

Materials (boiled) --

- 1c tomato macaroni
- Tomato sauce

TOMATO SAUCE

Materials

- $\frac{1}{2}$ can tomatoes
- 1 slice onion
- 3T butter
- 3T flour
- $\frac{1}{2}$ t salt
- 1 bay leaf

Method

- 1 Cook tomato with onion and bay leaf 15 minutes slowly.
- 2 Put through strainer.
- 3 Prepare butter and flour as for white sauce and add tomatoes to flour mixture.
- 4 Use with macaroni in place of cheese sauce.

TABLE SHOWING COMPOSITION

	Protein	Fat	Starch	Mineral Matter	Water
Oatmeal	15.6	7.3	68.0	1.9	7.2
Corn meal	8.9	2.2	75.1	0.9	12.9
Wheat flour (spring)	11.8	1.1	75.0	0.5	11.6
Wheat flour (winter)	10.4	1.0	75.6	0.5	12.5
Entire wheat flour	11.2	1.9	70.6	1.2	12.1
Graham flour	13.7	2.2	70.3	2.0	11.8
Pearl barley	9.3	1.0	77.0	1.3	10.8
Rye meal	7.1	0.9	78.5	0.8	12.7
Rice	7.8	0.8	79.1	0.1	12.1
Buckwheat flour	6.1	1.0	77.2	1.4	14.3
Macaroni	11.7	1.6	72.9	3.0	10.8

LESSON 8

SUGAR

Sugar is a crystalline substance differing from starch by its sweet taste and its solubility in cold water. As a food its uses are the same as starch. All starch must be converted into sugar before it can be assimilated.

The principal kinds of sugar are: Cane sugar, or sucrose; milk sugar, or lactose; grape sugar, or glucose; and fruit sugar, or levulose.

The kind we usually mean when we speak of sugar is made from the juice of the sugar cane. The sugar cane is a tropical plant, belonging to the family of grasses. It looks like corn, but grows sometimes twenty feet high.

The sweet juice obtained by crushing the cane stalks between rollers is boiled to thick syrup in large copper vessels. As it slowly cools part of it separates into crystals.

The liquid that will not crystalize is called molasses. After draining this off, raw sugar, a coarse, impure, brown product, is left. This raw sugar is mixed with hot water, treated with lime to neutralize any acid present, and then filtered through flannel, and then through charcoal. Next it is boiled in vacuum pans. These are covered vessels from which part of the air has been exhausted. Under this reduced pressure the sugar solution can be evaporated to a thick syrup without danger of burning it.

Granulated sugar is obtained from this syrup by putting it into rapidly revolving cylinders which throw out the uncrystallized part of the syrup, leaving a mass of white crystals.

When the syrup is run into molds to harden and then cut into cubes, it is called cut or block sugar.

Honey is the purest natural form of sugar.

Beet sugar is made from the sugar beet.

PEANUT BRITTLE

Materials

- 2c sugar
- 1c water
- 1 t cream tartar
- 1 t salt
- 1c chopped peanuts

Method

- 1 Place all together, except peanuts, in sauce pan, being careful that none sticks to the sides.
- 2 Let boil without stirring until a faint yellow tinge appears on the syrup (310°).

3 Remove to a pan of cold water to instantly stop the boiling.

4 Add nuts, pour at once into well buttered pan. When cold break in pieces.

Note—Any kind of nuts may be used in the same manner or fruit.

CHOCOLATE FUDGE

Materials—

- 2c granulated sugar
- 2 sqs. Baker's chocolate
- $\frac{1}{2}$ c milk
- 2T butter
- $\frac{1}{4}$ t salt
- $\frac{1}{2}$ c Karo corn syrup

Method—

- 1 Put all together in sauce pan and cook over the fire, stirring constantly, until the mixture will make a soft ball when dropped in cold water.
- 2 Remove from the fire, beat vigorously till quite thick.
- 3 Pour into buttered pans and when cool mark in squares.

CARAMEL FUDGE

Materials—

- 2c sugar
- $\frac{1}{2}$ c milk
- 2T butter
- 1c nuts
- $\frac{1}{4}$ t salt

Method—

- 1 Put $\frac{1}{2}$ c sugar in an iron sauce pan without moisture over the fire.
- 2 Put remaining sugar in an ordinary sauce pan with the milk and butter.
Stir sugar in iron pan until melted and add to other mixture when it has boiled.
- 3 Cook until the mixture forms a soft ball when dropped in cold water.
Remove from the fire, stir in the salt and nuts, beat until creamy.
- 5 Pour into buttered pan and when cool mark in squares.

Note.—Caramel fudge covered with chocolate fudge makes a desirable combination with nuts and marshmallows between the layers.

SEA FOAM

Materials

- 2c sugar
- 1/2c boiling water
- 1/2c corn syrup
- Whites of 2 eggs
- 1c nuts

Method

- 1 Mix syrup and water and stir until dissolved.
- 2 Add syrup and boil until it forms a hard ball in water.
- 3 Pour over the beaten whites of eggs, add nuts and beat until it holds its shape when dropped on paper.
- 4 Drop on waxed paper or make into a loaf and slice when cold with a knife dipped in hot water.

POPCORN BALLS

Materials

- 2c sugar
- 1c corn syrup
- 2T vinegar
- 1T butter
- 1T salt

Boil until brittle, pour over popcorn; form in balls and let cool.

LESSON 9

BAKING POWDER

Baking powder is composed of soda and cream of tartar in definite, correct proportions, mixed with a small quantity of flour or cornstarch to keep action from taking place. If found to contain alum or ammonia it is impure. In using baking powder use two teaspoonfuls to each cup of flour when eggs are not used; to egg mixtures allow one and one-half teaspoonfuls of baking powder.

Soda and cream of tartar or baking powder mixtures are made light by liberation of gas in the mixture; the gas in soda is set free by the acid in the cream of tartar. In order to accomplish this, moisture and heat are both required. As soon as moisture is added to baking powder mixtures the gas (CO_2) will begin to escape. It fills the batter or dough with bubbles, making it rise higher and higher. As the gas expands the walls of the bubbles stretch and become thin. Just at this stage, if the oven is right, the heat sets the mixture and imprisons the gas. In too hot an oven a crust forms before all the gas is set free; in too cool an oven the bubbles break and the gas escapes.

Bicarbonate of soda is an alkaline substance and contains carbon dioxide.

Cream of tartar is an acid substance.

Acid and alkaline substances are opposite in their natures.

EXPERIMENT 1

Put into a cup $\frac{1}{4}$ t soda and pour on it $\frac{1}{4}$ c of boiling water.

EXPERIMENT 2

Put into a cup $\frac{1}{4}$ t of soda and pour on it $\frac{1}{4}$ c of boiling water. Add to this a little more than $\frac{1}{4}$ t of cream of tartar

EXPERIMENT 3

Put in a glass $\frac{1}{4}$ t of soda and $\frac{1}{2}$ t of cream of tartar. Mix thoroughly. Add 1T of cold water and stir. Now add $\frac{1}{4}$ c of boiling water.

LESSON 10

FLOUR MIXTURES

Flour mixture is a term applied to those dishes composed of a definite amount of flour moistened by a given amount of liquid. In addition to this they usually contain a leaven and flavoring.

Leavens-

Baking powder

Soda (acts on acid and forms carbon dioxide gas)

Albumin in egg

Flour mixtures fall roughly into two groups: Batters and doughs.

A batter is any flour mixture that can be beaten. There are two kinds: Pour or thin batter. Drop or thick batter.

A dough is any flour mixture that can be molded with the hands. There are two kinds: Soft and stiff.

Flour should be measured after sifting.

POPOVERS

Materials -

1c of flour

1c of milk

2 eggs

$\frac{1}{4}$ t salt

Method

- 1 Place flour in mixing bowl, make a depression in the center, into this put salt and unbeaten egg.
- 2 Add milk gradually, beating with dover beater until smooth.
- 3 Pour into hot iron gem pans and bake 35 to 45 minutes in a hot oven.

Note - Earthen cups heated may be used for popovers.

GRAHAM MUFFINS

Materials -

1c Graham flour

1c white flour

$\frac{1}{4}$ c sugar

1t salt

1c milk

1 egg

2T melted butter

4t baking powder

Method

- 1 Mix and sift the dry ingredients except the Graham flour.
- 2 Add the Graham flour.
- 3 Add milk gradually and egg beaten.
- 4 Add melted butter.
- 5 Bake in a hot oven in well greased muffin pans 25 minutes.

TWIN MOUNTAIN MUFFINS

Materials

- $\frac{1}{2}$ c sugar
- $\frac{1}{4}$ c butter
- $\frac{3}{4}$ c sweet milk
- 1 egg
- 2 c flour
- 3 t baking powder

Method

- 1 Cream butter and sugar. Add beaten egg.
- 2 Add flour sifted with baking powder alternately with milk.
- 3 Beat well and bake in gem pans about 20 minutes in a moderate oven.

BACON MUFFINS

Materials

- 4 c flour
- 1 t salt
- 4 t baking powder
- 6 slices of bacon cut in small pieces
- 2 c milk
- 1 t sugar
- 2 eggs

Method

- 1 Beat eggs, add sugar then milk.
- 2 Sift baking powder and flour, add salt, and add gradually to the first mixture while stirring.
- 3 Fry bacon slowly until all fat is out and bacon is crisp and brown.
- 4 Add bacon and fat to batter. Bake in muffin tins.

CORN MEAL MUFFINS

Materials

- $\frac{1}{2}$ c corn meal
- 2 c sour milk

1t soda
1t salt
2 eggs
2T butter

Method--

- 1 Mix soda, salt, and corn meal.
- 2 Gradually add eggs well beaten and milk.
- 3 Add butter melted.
- 4 Bake in well greased hot iron gem pans in a hot oven.

GRIDDLE CAKES

Materials--

2c butter milk
3c flour
2t soda
1t salt

Method--

- 1 Sift flour into butter milk, add salt and beat well.
- 2 Add soda just before frying and beat it in well.
- 3 Fry on slightly greased griddle until a delicate brown.

Note—Turn cakes only once, let brown on one side, turn, brown on the other and serve.

LESSON 11

BAKING POWDER BISCUIT

Materials

- 2c flour
- 2½c milk
- 4t baking powder
- 2T shortening
- ½t salt

Method

- 1 Mix dry ingredients, sift twice.
- 2 Work in shortening with the tips of the fingers or a knife until the mixture looks like meal.
- 3 Add milk gradually, a small amount at a time, until the whole adheres and leaves the sides of the mixture bowl, not too moist to handle.
- 4 Toss on slightly floured board and roll lightly to one-half inch thickness.
- 5 Shape with biscuit cutter, place in floured pan, bake 12 to 15 minutes in hot oven.

Note Impossible to state definitely the amount of moisture which will be taken up, as flours differ in their powers of absorption.

SODA BISCUIT

Materials—

- 4c flour
- 4T shortening
- 1t salt
- 1t soda (if the milk is not very sour use ¾t)
- 1t baking powder
- 1c buttermilk

Method

- 1 Sift flour, soda, and baking powder together, add salt.
- 2 Work in the shortening with tips of fingers or a knife.
- 3 Add milk slowly while working the dough with a spoon, making a dough that can be handled.
- 4 Knead well, shape with biscuit cutter, place in floured pan and bake in a hot oven 10 to 15 minutes.

WAFFLES

Materials—

- 2½c flour
- ½t salt
- 2c sour milk
- 1¼t soda
- 2 eggs
- 1T melted butter

Method—

- 1 Mix and sift the dry ingredients.
- 2 Add milk gradually, then the yolks of eggs well beaten. Fold in the stiff beaten whites of the eggs.
- 3 Cook on greased, hot waffle iron.

WAFFLES (WITH SWEET MILK)

Materials—

- 1¾c flour
- 3t baking powder
- ½t salt
- 1c sweet milk
- 2 eggs
- 1t melted butter

Method—

Same as above.

LESSON 12

FRUIT ROLLS

Materials

- 2c flour
- 4t baking powder
- $\frac{1}{4}$ t salt
- 2T sugar
- 2T butter
- $\frac{2}{3}$ c milk
- $\frac{1}{3}$ c raisins (finely chopped)
- 2T currants
- $\frac{1}{4}$ t cinnamon

Method

- 1 Mix as for baking powder biscuit.
- 2 Roll to $\frac{3}{4}$ in. thickness, brush over with melted butter, and sprinkle with fruit, sugar and cinnamon.
- 3 Roll like a jelly roll; cut off pieces $\frac{3}{4}$ inch thickness.
- 4 Place on well greased pan, cut side down, and bake in hot oven 15 minutes.

FRIED CAKES

Materials

- 1c sugar
- 3T butter
- 2 eggs
- 1c sour milk
- 1t soda
- 1t baking powder
- $\frac{1}{4}$ t salt
- Cinnamon and nutmeg
- 2c flour

Method

- 1 Cream butter and sugar, add beaten eggs.
- 2 Add milk, soda and baking powder sifted with the flour.
- 3 Add salt and flavoring and more flour to make a dough that can be handled (as soft as possible).
- 4 Roll to $\frac{1}{2}$ inch thickness, cut with doughnut cutter, and fry in deep fat.

RULES FOR DEEP FAT FRYING

Great care must be taken that too much is not put into the fat at one time, not only because it lowers the temperature of the

fat, but because it causes it to bubble and go over the sides of the kettle. It is not the fat that boils over but water which the fat has received from the food.

All fried food on removal from the fat should be drained on brown paper.

RULES FOR TESTING FAT FOR FRYING

When the fat begins to smoke drop in an inch cube of bread from the soft part of the loaf, and if in 40 seconds it is a golden brown, the fat is then of the right temperature for frying any cooked mixture, as fish balls.

Use the same test for uncooked mixtures allowing 1 minute for the bread to brown, as for doughnuts.

LESSON 13

BREAD AND BREAD MAKING

Bread is the most important article of food, and history tells of its use thousands of years before the Christian era. Many processes have been employed in making and baking; and as a result, from the first flat cake has come the perfect loaf. The study of bread making is of no slight importance, and deserves more attention than it receives.

Bread is made from flour of wheat, or other cereals, by addition of salt, water, and a ferment. Wheat flour is best adapted to bread making, as it contains gluten in the right proportion to make the spongy loaf.

The difference between bread and pastry flour may be readily determined. Take bread flour in the hand, close the hand tightly, then open, and the flour will not keep its shape; if allowed to pass through the fingers it will feel slightly granular. Take pastry flour in the hand, close the hand tightly, open and flour will be in shape, having the impression of the lines of the hand, and feel soft and velvety to the touch.

Flour should always be sifted before measuring.

Entire wheat flour differs from ordinary flour inasmuch as it contains all the gluten of the wheat, the outer husks of kernels only being removed, the remainder ground to different degrees of fineness and left unbolted.

Gluten, the protein of wheat, is a gray, tough, elastic substance, insoluble in water. On account of its great power of expansion, it holds the gas developed in bread dough by fermentation, which otherwise would escape.

YEAST

Yeast is a microscopic plant of fungous growth, and is the lowest form of vegetable life. It consists of spores, or germs, found floating in the air, and belongs to a family of which there are many species. These spores grow by budding and division, and multiplying very rapidly under favorable conditions, and produce fermentation.

Fermentation is the process by which, under influence of air, warmth, and moisture, and some ferment, sugar is changed into alcohol and carbon dioxide. The product of all fermentation is the same. Three kinds are considered: Alcoholic, acetic, and lactic. Where bread dough is allowed to ferment by addition of yeast, the fermentation is alcoholic; where alcoholic fermentation continues too long, acetic fermentation sets in, which

is a continuation of alcoholic. Lactic fermentation is fermentation which takes place when milk sours.

Liquid, dry, or compressed yeast may be used for raising bread. The compressed yeast cakes done up in tinfoil have long proved satisfactory, and are now almost universally used, having replaced the home made liquid yeast.

Never use a yeast cake unless perfectly fresh, which may be determined by its light color and absence of dark streaks.

The yeast plant is killed at 212° F.; life is suspended, but not entirely destroyed at 32° F. The temperature best suited for its growth is from 65° to 75° F. The most favorable conditions for the growth of yeast are a warm, moist, sweet, nitrogenous soil. These must be especially considered in bread making.

BREAD MAKING

Bread is made by mixing to a dough, flour, with a definite quantity of water, milk, or water and milk, salt, and a ferment. Sugar is usually added to hasten fermentation. Dough is then kneaded that the ingredients may be thoroughly incorporated covered, and allowed to rise in a temperature of 65° to 75° F. until the dough has doubled its bulk. This change has been caused by the action of the ferment, which attacks some of the starch in the flour and changes it to sugar, and sugar in turn to alcohol and carbon dioxide, thus lightening the whole mass. Dough is then kneaded a second time to break the bubbles and distribute evenly the carbon dioxide. It is shaped in loaves, put in greased pans (they being half filled) covered, allowed to rise in a temperature same as for first rising, to double its bulk. If risen too long it will be full of large holes; if not risen long enough it will be heavy and soggy. If pans containing loaves are put in too hot a place while rising, a heavy streak will be found near the bottom of the loaf.

HOW TO SHAPE LOAVES AND BISCUITS

To shape bread dough in loaves, divide dough in parts, each part large enough for a loaf, knead until smooth, and if possible avoid seams in the under part of the loaf.

To shape bread dough in biscuits, pull or cut off as many small pieces (having them of uniform size) as there are to be biscuits. Work in the hand until smooth, place in greased pans near together, brushed between with a little melted butter, which will cause them to separate easily after baking.

Biscuits may be shaped in a variety of ways, but they should always be small.

Bread and biscuits are often brushed over with milk before baking, to make a darker crust.

Where bread is allowed to rise over night, a small piece of yeast must be used; $\frac{1}{4}$ yeast cake to one quart of liquid being sufficient. Bread mixed and baked during the day requires a larger quantity of yeast.

BAKING OF BREAD

Bread is baked: (1) To kill ferment, (2) To make soluble the starch, (3) To drive off alcohol and carbon dioxide, and (4) To form a brown crust of pleasant flavor. Bread should be baked in a hot oven. If the oven be too hot the crust will brown quickly before the heat has reached the center, and prevent further rising; the loaf should continue rising for the first 15 minutes of baking, when it should begin to brown, and continue browning for the next 20 minutes. The last 15 minutes it should finish baking, when the heat may be reduced. When bread is done it will not cling to the pan, and may be easily removed.

Biscuits require more heat than loaf bread, should continue rising the first 5 minutes and begin to brown in 8 minutes. Experience is the best guide for testing the temperature of the oven.

Bread may be brushed over with melted butter just before taking from the oven if a more tender crust is desired.

CARE OF BREAD AFTER BAKING

Remove loaves at once from the pans, and place side down on a wire bread or cake cooler. If a crisp crust is desired, allow bread to cool without covering; if a soft crust, cover with a towel during cooling. When cool put in a tin box or stone jar and cover closely.

Bread tins or jars should be washed and scalded twice a week in winter, and every other day in summer; otherwise bread is apt to mould.

MILK AND WATER BREAD

Materials

- 1T butter
- 1t salt
- 1T sugar
- 1 yeast cake dissolved in
- 1c lukewarm water
- 1c milk, scalded
- 1c boiling water
- 6c flour

Method

- 1 Dissolve butter, salt, and sugar in the scalded milk and water.
 - 2 Dissolve yeast cake in the lukewarm water.
 - 3 When the milk mixture is lukewarm add the dissolved yeast cake.
 - 4 Beat flour into this until it can be molded with the hands.
 - 5 Place dough on floured board and knead till it no longer sticks to the board or hands, using as little flour as possible and keeping the loaf soft and spongy.
 - 6 Place the dough back in the bowl and let stand in a warm place or surrounded by lukewarm water until it doubles its bulk.
 - 7 Mold on floured board till air bubbles are broken up and evenly divided and distributed and the texture is even, smooth, and soft.
 - 8 Shape into loaves. Place in well greased tins and allow to rise till nearly double its bulk.
 - 9 Bake till a deep brown in color, turning when necessary so as to brown the whole surface evenly.
 - 10 Remove from the pan and place to cool where the air will reach all sides.
- Do not cover at once.

GRAHAM BREAD

Materials

- 1 yeast cake
- 1c milk, scalded and cooled
- 1c lukewarm water
- 2T lard or butter
- 4T brown sugar
- 4c Graham flour
- 1c sifted white flour
- 1t salt

Method—

- 1 Dissolve yeast and sugar in the lukewarm liquid.
 - 2 Add lard or butter, then the flour, gradually, and lastly the salt.
 - 3 Knead thoroughly, being sure to keep the dough soft. Cover and set aside in a warm place to rise, for about two hours.
 - 4 When double in bulk, turn out on kneading board, mould into loaves, and place in well greased pans, cover and set to rise again until light.
- Bake one hour in a slower oven than for white bread.

LESSON 15

OATMEAL BREAD

Materials

- 1 yeast cake
- 2c boiling water
- 2c rolled oats
- $\frac{1}{4}$ c brown sugar
- $\frac{1}{2}$ c lukewarm water
- 4c sifted flour
- 1t salt

Method

- 1 Pour the boiling water over the oatmeal, cover and let stand until cool.
- 2 Dissolve the yeast and sugar in the lukewarm water and add this to the oatmeal and water.
- 3 Add one cup of flour, or enough to make a sponge (a thin batter).
- 4 Beat well. Cover and set aside in a warm place to rise for one hour, or until light.
- 5 Add enough flour to make a dough, about three cups, lastly add the salt. Knead well. Place in greased bowl, cover and let rise until double in bulk, about $1\frac{1}{2}$ hours.
- 6 Mold into loaves, fill well greased pans half full, cover and let rise again about one hour. Bake 45 minutes in a hot oven. $\frac{1}{2}$ c chopped nut and 1T of lard or butter may be added.

RAISIN BREAD

Materials

- 1 yeast cake
- 1c lukewarm water
- 1c milk, scalded and cooled
- 6c sifted flour
- $\frac{3}{4}$ c sugar
- 4T lard or butter
- 1c raisins, washed and cut in half
- 1t salt

Method

- 1 Dissolve yeast and 1T sugar in the lukewarm water and milk.
- 2 Add two cups flour, the lard or butter, and sugar well creamed, and beat until smooth.
- 3 Cover and set aside in a warm place until light, about $1\frac{1}{2}$ hours.

- 4 When well risen, add raisins well floured, the rest of the flour to make a soft dough, and lastly the salt. Knead lightly.
- 5 Place in well greased bowl, cover and let rise again until double in bulk, about $1\frac{1}{2}$ hours.
- 6 Mold into loaves, fill well greased pans half full, cover and let rise until light, about 1 hour. Glaze with egg diluted with water, and bake 45 minutes.

LESSON 16

PARKER HOUSE ROLLS

Materials

- 2c scalded milk
- 3T butter
- 2T sugar
- 1t salt
- 1 yeast cake dissolved in
- $\frac{1}{4}$ c lukewarm water

Method

- 1 Same as for milk and water bread through the first six steps.
- 7 When double its bulk roll to $\frac{1}{4}$ inch thickness, shape with biscuit cutter dipped in flour.
- 8 Dip the handle of a case knife in flour and with it make a crease through the middle.
- 9 Brush over one-half of each piece with melted butter, fold and press the edges together.
- 10 Place in well greased pan one inch apart, cover and let rise to nearly double in bulk.

Bake in a hot oven 12 to 15 minutes.

Note. - If raised too rapidly the rolls will lose their shape. It is more uniform to use a cutter rather than to guess at it by cutting or tearing it off.

CINNAMON ROLLS

Materials

Same as for milk and water bread.

Method

- 1 Same as for milk and water bread through the first six steps.
- 7 Roll to $\frac{1}{4}$ inch thickness, spread with butter, sprinkle with sugar and cinnamon (proportion 1T sugar to $\frac{1}{4}$ t cinnamon).

Roll up like jelly roll and cut in 1 inch pieces.

- 8 Place in well greased pan, close together, cut side down.

Note. Chopped raisins and currants may be added before rolling.

RAISED DOUGHNUTS

Materials

- 2c scalded milk
- $\frac{3}{4}$ c sugar

$\frac{1}{2}$ c butter
1 egg
1 yeast cake
3c flour

Method

- 1 Scald and cool the milk. When lukewarm add the yeast cake dissolved in $\frac{1}{4}$ c of lukewarm water, salt, and flour enough to make a stiff batter. Let rise over night.
- 2 In the morning add the shortening melted, sugar, eggs well beaten, and enough flour to make a stiff dough.
- 3 Let rise again. Turn on floured board, roll to $\frac{3}{4}$ inch thickness. Shape with doughnut cutter, place on floured board let rise one hour, turn, and let rise again. Fry in deep fat and drain on brown paper. Cool and dust with powdered sugar.

LESSON 17

BREAD PUDDING

Materials

- 2c bread crumbs
- 4c scalded milk
- $\frac{1}{2}$ c sugar
- $\frac{1}{4}$ c melted butter
- 2 eggs
- $\frac{1}{2}$ t salt
- 1t vanilla

Method

- 1 Soak crumbs in the scalded milk, set aside to cool.
- 2 Add sugar, butter, and the eggs beaten. Add salt and flavoring.
- 3 Bake one hour in a slow oven in a buttered baking dish.

Note. - Raisins may be added if desired.
Serve with lemon sauce.

LEMON SAUCE

Materials

- $\frac{3}{4}$ c sugar
- $\frac{1}{4}$ c water
- 2t butter
- 1T lemon juice

Method

- 1 Make a syrup by boiling the sugar and water three minutes.
- 2 Add butter and lemon juice. Serve hot.

STEAMED FRUIT PUDDING

Materials

- 3c flour
- 1t soda
- $\frac{1}{2}$ t salt
- $\frac{2}{3}$ c butter and lard mixed
- $\frac{1}{2}$ t cinnamon
- $\frac{1}{2}$ t nutmeg
- 1c molasses
- 1c water
- 1c chopped fruit
- 1c nuts

Method--

- 1 Mix and sift the dry ingredients, add the fruit and nuts.
- 2 Mix the water, butter, and molasses, and stir into the dry mixture.
- 3 Pour into well greased mold and steam 2 or 3 hours. Serve with hard sauce.

HARD SAUCE

Materials--

- $\frac{1}{4}$ c butter
- $\frac{1}{4}$ c sugar (powdered)
- $\frac{1}{2}$ t vanilla
- Few gratings of nutmeg

Method--

- 1 Cream the butter, add sugar gradually while stirring
- 2 Add vanilla and pack in a dish and sprinkle with nutmeg. Set in ice box until wanted.

LESSON 18

HOT WATER GINGER BREAD

Materials—

- 1c molasses
- $\frac{1}{2}$ c sugar
- $\frac{1}{2}$ c butter or lard
- 1 egg
- 1c boiling water
- 2t soda
- 1t ginger
- 2t cinnamon
- $2\frac{1}{2}$ c flour

Method—

- 1 Mix the dry ingredients, except the sugar.
- 2 Mix the molasses, sugar, and butter, melted.
- 3 Add eggs to the last mixture and beat well.
- 4 Add wet to dry mixture, add hot water and beat thoroughly.
- 5 Bake 20 minutes in a hot oven.

OATMEAL COOKIES

Materials—

- 1c sugar
- $\frac{1}{2}$ c butter and lard mixed
- 2c flour.
- 2c oatmeal
- 1c chopped raisins
- 2 eggs
- 4T sweet milk
- $\frac{1}{2}$ t soda
- 1t cinnamon
- $\frac{1}{2}$ t salt

Method—

- 1 Cream butter, lard, and sugar.
- 2 Add egg yolks, then the whites, beaten, then the milk
- 3 Add the other ingredients that have been mixed.
- 4 Add raisins and flavoring. Drop on well greased tins, one inch apart, and bake in a quick oven.

PEANUT COOKIES

Materials—

- (1) Cream together—
 - 4T butter
 - $\frac{1}{2}$ c sugar

- 2 egg yolks
- 4T milk
- 1/2t salt
- 1t lemon juice
- (2) 1 1/2t baking powder
- 2c flour
- 2c chopped peanuts

Method

- 1 Beat (1) thoroughly, add (2); if too soft to mold into balls, add more flour. Roll into balls with the hands.
- 2 Place on well greased pans 2 inches apart and place half a peanut on each ball.
Bake in a moderate oven.

LESSON 19

CAKES

Cakes may be classified under two heads: Cakes without butter or sponge cakes; cakes with butter or cup cakes. Powdered sugar makes a fine grained cake.

Use only the best material - fresh eggs, fine granulated sugar, good butter, pastry flour, and good baking powder.

Use an earthen bowl and a wooden spoon for mixing cakes.

Have all the materials ready for use (flour measured, eggs broken, etc.) before beginning to put them together.

Take care not to make work for yourself by using more utensils than are necessary.

Cover flour bin, sugar jar, baking powder can, etc., as soon as you have taken from them what you need.

BAKING CAKES

Test the oven with a piece of white paper. If it turns a light yellow in five minutes it is ready for sponge cakes; if a dark yellow in five minutes it is ready for cup cakes. Cake should not be moved in the oven until it has risen its full height. When it feels firm to the touch, shrinks from the pan, and a straw inserted comes out clean, the cake is done.

The time required for baking a cake should be divided into four periods: During the first period the cake should rise, but not brown; it should continue to rise during the second period and should brown in spots. In the third period it should become a light brown all over, and during the fourth period it should become a deeper brown and should shrink from the sides of the pan.

SPONGE CAKE

Materials

- 2c sugar
- 6 eggs, leaving out the whites of two for icing.
- 1c boiling water
- 2½c flour
- 1T baking powder
- 2t flavoring

Method

- 1 Beat yolks of eggs a little, add sugar and beat 15 minutes.
- 2 Add water just before the flour which has been sifted with the baking powder.

3 Fold in the stiff beaten whites.

4 Bake in layers or loaf.

Note.—If gas is used put cake in a cold oven and turn on the heat.

ONE EGG CAKE

Materials—

$\frac{1}{4}$ c butter

$\frac{1}{2}$ c sugar

1 egg

$\frac{3}{4}$ c milk

$1\frac{1}{2}$ c flour

2 $\frac{1}{2}$ t baking powder

1t flavoring

Method—

1 Cream butter and sugar, add well beaten egg.

2 Sift baking powder with flour and add it alternately with the milk to the first mixture.

3 Add flavoring. Bake in a shallow pan 30 minutes.

SIX EGG CAKE

Materials—

2c sugar

$\frac{1}{2}$ c butter

1c milk

3c flour

4t baking powder

6 eggs

1t flavoring

Method—

1 Cream butter and sugar, add well beaten yolks.

2 Sift baking powder with flour, add alternately with the milk to the first mixture.

3 Fold in the stiff beaten whites and the flavoring.

4 Bake in layers.

Note.—For a spice cake add 2t cinnamon, 1t allspice, 1t nutmeg, 2T cocoa.

Note.—For a white cake add $\frac{1}{2}$ c more butter and omit the yolks.

CONFECTIONERS' FROSTING

Materials—

2T boiling water or cream

Confectioners' sugar

Flavoring

Method—

- 1 To the liquid add enough sugar to make of right consistency to spread; then add flavoring. Fresh fruit juice may be used instead of water. This is a most satisfactory frosting and quickly made.

BOILED FROSTING

Materials—

- 1c sugar
- $\frac{1}{2}$ c water
- Whites of 2 eggs
- 1t vanilla, or
- $\frac{1}{2}$ T lemon juice

Method—

- 1 Put sugar and water in a sauce pan and stir until dissolved.
- 2 Heat gradually to boiling point, and boil without stirring until the syrup will thread when dropped from the tip of a spoon.
- 3 Pour the syrup gradually on the beaten whites of the eggs, beating the mixture constantly, and continue beating until of right consistency to spread, then add flavoring and spread over cake.

Note.— If not beaten long enough the frosting will run; if beaten too long it will not be smooth.

LESSON 20

PASTRY

All the materials must be as cold as possible.

The shortening should not be cut too fine if a flaky crust is desired.

The dough should be mixed with a knife and not touched with the hands. It should be rolled on one side, using but little flour. The dough is rolled thin and baked until brown.

Meat and oyster pies should be made without an under crust. The crust should be cut in several pieces to allow the steam to escape.

If an under crust is desired, this crust may be baked first and then filled. In this case the crust must be pricked all over with a fork, so that it may keep its shape.

If two crusts are used, the lower one should be moistened around the edges with cold water, then a $\frac{1}{2}$ inch strip of paste may be placed around the edge of the under crust. This strip should also be moistened, and the upper crust placed over the pie and pressed slightly around the edges.

The paste may be made the day before using, then covered and placed on the ice. It will roll more easily if placed on the ice after mixing.

PLAIN PASTE

Materials —

$1\frac{1}{2}$ c flour

$\frac{1}{3}$ c lard

$\frac{1}{2}$ t salt

Ice water

Method —

- 1 Sift salt and flour together, work in the lard with the tips of the fingers or a knife.
- 2 Add water gradually until of right consistency to roll.
- 3 Roll on slightly floured board until thin. Place over pan, cutting around edges with a knife.
Use any filling desired.

Note.— If a solid cover is wanted pierce it with a fork before placing it.

APPLE PIE

Wipe and cut tart apples into eighths; remove the cores and skins. Vary the amount of sugar according to the acidity of the apples, using 2T or more for one apple. If the apples are not

juicy add from $\frac{1}{2}$ T to 1T water, according to size of the apples.

The apples may be flavored with lemon juice, cinnamon, or nutmeg, and should be dotted with butter.

Bake until the apples are soft and the crust is brown.

Apple sauce may be used on a baked crust.

CUSTARD PIE

Materials—

- 1 $\frac{1}{2}$ c milk
- 2T flour
- 1c sugar
- 1t butter
- 2 eggs

Method—

- 1 Scald milk in double boiler, add butter.
- 2 Mix the flour and sugar well. Add to yolks of the eggs gradually while beating.
- 3 Add enough milk to make a pour batter. Add this to the milk in the boiler and cook until thick.
- 4 When cool add any flavoring desired. Place in a baked crust, cover with meringue, and brown in the oven.

MERINGUE

Materials

- Whites of 2 eggs
- 2T powdered sugar
- $\frac{1}{2}$ T lemon juice or
- $\frac{1}{2}$ t vanilla

Method

- 1 Beat whites until stiff, add sugar gradually and continue beating.
- 2 Add flavoring.

CONDIMENTS

Condiments are not classed among foods, but are known as food adjuncts. They are used to stimulate the appetite by adding flavor to food. Among the most important are spices and flavorings.

Black Pepper is ground peppercorns. Peppercorns are dried berries of a plant grown in the West Indies, and other eastern countries.

White Pepper is made from the same berry, the outer husk being removed before grinding.

Cayenne Pepper is the powdered pod of *Capsicum*, grown on the eastern coast of Africa and Zanzibar.

Mustard is the ground seed of two species of the *Brassica*. One species yields white mustard seed; the other, black mustard seed. Both species are grown in Europe and America.

Ginger is the pulverized root of a plant grown in Jamaica, China, and India.

Cinnamon is the ground inner bark of a tree grown in Ceylon.

Clove is the ground flower buds of a plant grown in Zanzibar and the West Indies.

Pimento (commonly called allspice) is the ground fruit of a plant grown in Jamaica and the West Indies.

Nutmeg is the kernel of the fruit of a plant grown in the Banda Islands.

Vinegar is made from apple cider, malt, and wine, and is the product of fermentation. It is a great preservative, hence its use in making pickles, sauces, and other condiments.

Capers are flower buds of a plant grown in the countries bordering the Mediterranean. They are preserved in vinegar, and bottled for transportation.

Horseradish is the root of a plant native to Europe, but now grown in our own country. It is generally grated, mixed with vinegar, and bottled.

LESSON 21

SOUPS

Soups are divided into two classes. Those with stock and those without stock. By stock is meant the soluble portions of meat and bone, together with soluble portions of vegetables extracted by long cooking, these are more or less solid when cold according to the gelatinous quality of the materials used.

SOUPS WITH STOCK

- 1 Bouillon—made from lean beef, delicately seasoned and clear.
- 2 Brown Soup Stock—made from beef, highly seasoned with vegetables, spices, and herbs. The color being increased by browning the meat before adding the liquid.
- 3 White Soup Stock—made from chicken or veal, delicately seasoned.
- 4 Consomme—usually made from two or three kinds of meat, highly seasoned with vegetables, spices, and herbs. Always served clear.
- 5 Lamb Stock—delicately seasoned is served as mutton broth.

SOUPS WITHOUT STOCK

Usually have for their basis white sauce.

- 1 Cream Soups—made of vegetables or fish, with milk and a small amount of seasonings. Always thickened.
- 2 Purees—made from vegetables or fish, forced through a strainer and the pulp retained in the soup.
- 3 Bisque—like purees, except the meat or vegetables are cut in dice and served in the soup.

Note.—*Binding.* Purees will separate the liquor from the solid or vegetable pulp unless they are bound together. The term bind in soups means to thicken with flour and water rubbed smooth, or flour and butter. The starch combines the solid with the liquid and prevents the solid from sinking to the bottom.

KINDS OF CREAM SOUPS

Celery	Corn
Asparagus	Potato
Tomato	Chicken

PUREES

Bean
Pea
Corn

Tomato
Potato

BISQUE

Lobster

LESSON 22

CREAM OF CORN SOUP

Materials—

1 can corn
2c boiling water
2c milk
1 slice onion
2T flour
2T butter
1t salt
pepper

Method—

- 1 Chop corn, add water and simmer for 15 minutes.
- 2 Scald milk with onion. Add milk to corn, removing the onion.
- 3 Bind with butter and flour. Add salt and pepper just before serving.

CREAM OF TOMATO SOUP

Materials—

$\frac{1}{2}$ can tomatoes
2t sugar
 $\frac{1}{4}$ t soda
1 qt milk
1 slice onion
4T flour
1t salt
 $\frac{1}{8}$ t pepper
 $\frac{1}{3}$ c butter

Method—

- 1 Scald milk with onion, remove onion, and thicken milk with flour diluted with cold water until thin enough to pour, being careful that the mixture is free from lumps.
- 2 Cook 20 minutes, stirring constantly at first.

- 3 Cook tomato with sugar 15 minutes, add soda, and rub through a sieve.
- 4 Combine mixtures, and strain into tureen over the butter, salt, and pepper.

Note.—Salt causes cream soups to curdle.

CROUTONS

Cut bread in one-third inch slices and remove the crusts. Spread thinly with butter. Cut slices in one-third inch cubes or strips, put in a pan and bake until delicately brown.

LESSON 23

BEAN PUREE

Materials—

- 2c boiled lima beans
- 2c milk
- 1 slice onion
- $\frac{1}{2}$ t salt
- 1T butter
- 1 stalk of celery, or
- 1T celery salt
- 1T flour

Method—

- 1 Soak beans in water to cover, over night.
- 2 Boil until soft (2 hours).
- 3 Rub beans through a strainer.
- 4 Scald milk with onion and celery. Strain, add bean pulp.
- 5 Bind with butter and flour rubbed together until smooth.
- 6 Let cook 5 minutes. Pour into serving dish, add salt and pepper.

POTATO SOUP

Materials

- 3 potatoes
- 4c milk
- 2 slices onion
- 3T butter
- 2T flour
- $\frac{1}{2}$ t salt
- $\frac{1}{4}$ t celery salt
- $\frac{1}{4}$ t pepper
- 1t chopped parsley

Method -

- 1 Cook potatoes in boiling salt water until soft. Rub through sieve.
- 2 Scald milk with onion, remove onion, add milk slowly to potatoes.
- 3 Melt the butter, add dry ingredients, stir till well mixed, then stir into the boiling soup.
- 4 Cook one minute, strain, add remaining butter, and sprinkle with parsley.

SOUP STOCK

Materials --

- 1 $\frac{1}{2}$ lb beef
- 1 $\frac{1}{2}$ lb veal
- 1 qt water
- 2t salt
- 1t mixed herbs
- 1 sprig parsley
- $\frac{1}{2}$ onion
- 2 slices carrot
- 1 stalk celery

Method --

- 1 Wipe meat with a damp cloth and cut into inch cubes.
- 2 Put bone, meat, salt, water, and seasonings in soup kettle and allow to stand $\frac{1}{2}$ hour. (Seasoning should be tied in a cheesecloth bag.)
- 3 Set kettle on fire, bring slowly to boiling point, and let simmer for 5 or 6 hours.
- 4 Wash and pare vegetables and add to soup stock and boil 1 hour.
- 5 Strain through cheesecloth and cool.

TO CLEAR STOCK

Materials --

- 1 qt soup stock
- 1 egg and shell
- $\frac{1}{2}$ c water

Method -

- 1 Add white of egg and finely broken shell to stock when cool.
- 2 Stir mixture while heating it to boiling point.
- 3 Let boil 10 minutes without stirring. Remove from the fire and add cold water, let stand 10 minutes.
- 4 Strain through cheesecloth wet in hot water.

VEGETABLE SOUP

Materials -

- 1 soup bone (10c)
- 2c potatoes
- 1c turnips
- $\frac{1}{2}$ c rice
- 1c stewed tomatoes
- $\frac{1}{2}$ c celery
- $\frac{1}{2}$ onion
- Water
- Salt and pepper

Method—

- 1 Cover soup bone with cold water. Let stand $\frac{1}{2}$ hour.
- 2 Place on a low fire and let simmer for 2 hours.
- 3 One hour before serving, add vegetables cut in dice
- 4 Add salt and pepper just before serving.

Note.—If too thick add boiling water.

LESSON 24

PROTEIN

Albuminoids

Albumin.....	egg white
Gluten.....	wheat
Myosin.....	lean meat
Casein.....	milk

Gelatinoids —

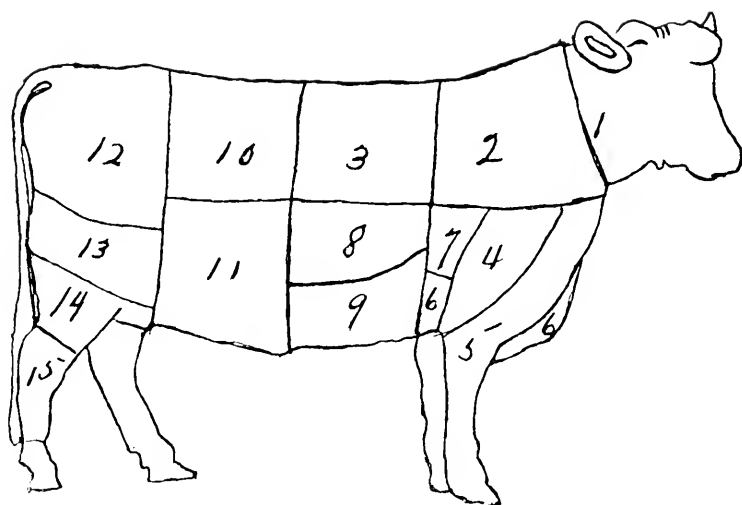
Collagen.....	fibers and tendons
Ossein.....	bone
Chondrin.....	cartilage

Extractives

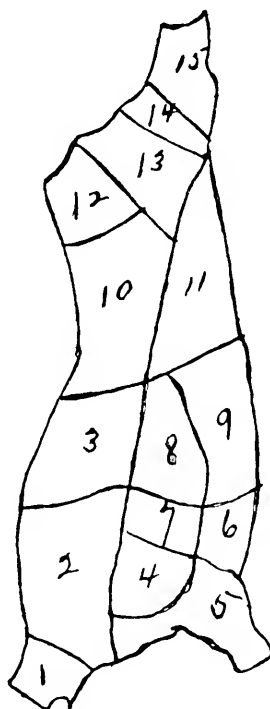
Creatin
Creatinin
Xanthin
Carnine

Proteins build up tissue. Albuminoids are the only proteins that we can prove build tissue. Gelatinoids do not really do this. They dissolve when heated, and stimulate the secretion of the digestive juices. Extractives are the flavoring matter of the meat, and have no power to build tissue. They simply stimulate.

LESSON 25

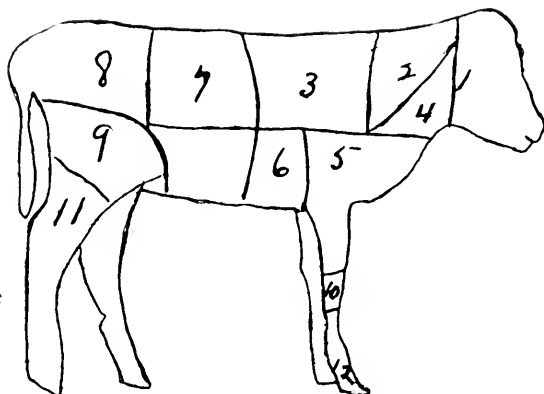


- 1 Neck
- 2 Chuck
- 3 Ribs
- 4 Shoulder
- 5 Fore Shank
- 6 Brisket
- 7 Cross Ribs
- 8 Plate
- 9 Navel
- 10 Loin
- 11 Flank
- 12 Rump
- 13 Round
- 14 Second Cut Round
- 15 Hind Shank



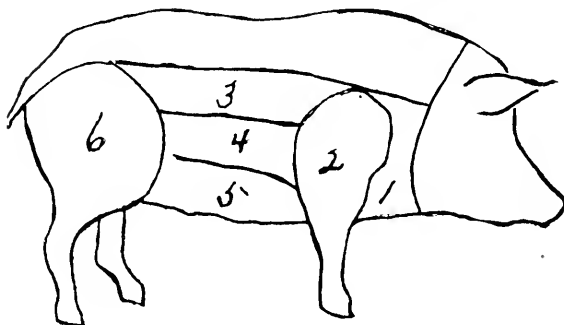
VEAL

- 1 Head
- 2 Neck
- 3 Ribs
- 4 Brisket
- 5 Shoulder
- 6 Breast
- 7 Loin Best
- 8 Loin Rump
- 9 Knuckle
- 10 Fore Knuckle
- 11 Fillet
- 12 Feet



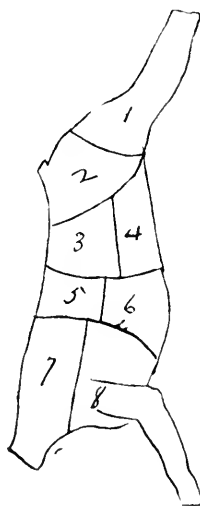
PORK

- 1 Neck
- 2 Shoulder
- 3 Loin Ribs
- 4 Mixed Pork
- 5 Bacon
- 6 Ham



SIDE OF LAMB

- 1 Leg
- 2 Loin, Saddle
- 3 Loin
- 4 Flank
- 5 Ribs
- 6 Breast
- 7 Neck
- 8 Shoulder



MEAT

Meat is the name applied to the flesh of animals used for food. In the markets this name is applied only to the flesh of cattle, sheep, and hogs. That of mature animals being known as beef, mutton, and pork, respectively; that of calves as veal, and of lambs as lamb. Meats consist of muscular tissue or lean connective tissue, as tendons, gristles, etc., fatty tissue, blood vessels, nerves, bones, etc.

The chief refuse in meat is bone. Bone contains some nutriment and may be utilized in making soup.

The nitrogenous compounds of meat are made up chiefly of albuminoids and gelatinoids. The albuminoids are so called because they resemble albumin or white of egg in their properties, and the gelatinoid substances are so named because of their similarity to gelatine.

Meat contains mineral matters which have value as food.

After slaughtering, meats undergo marked changes in texture. These changes may be grouped under three classes or stages.

In the first stage, when meat is just slaughtered, the flesh is soft, juicy, and tender. In the next stage the flesh stiffens and the meat becomes hard and tough. In the third stage it becomes soft and tender and acquires added flavor. The softening is due to the formation of lactic acid, which acts upon the connective tissue.

The flavor of meat depends upon the kinds and the amount of "nitrogenous extractives" which it contains.

Meat is a protein food, therefore builds and repairs tissue. It also furnishes some heat and energy, but in such small quantities that it must be combined with such food as bread, potatoes, rice, etc., in order to furnish the heat and energy required. Meat is digested in the stomach.

The chief object in cooking meat is to loosen and soften the tissues, which facilitates digestion by exposing them more fully to the action of the digestive juices. Another important object is to kill the germs. Another object is to coagulate the albumin and blood so as to render the meat more acceptable to the sight, and the development and improvement of the natural flavors, which is often accomplished in part by the addition of condiments.

If meat is placed in cold water, part of the organic salts, the soluble albumin, and the extractives or flavoring matter are dissolved out. If the water is gradually heated more of the soluble materials are dissolved. At a temperature of about 134° F. the soluble albumin will begin to coagulate and at 160° F. the dissolved albumin will rise as a brownish scum to the top and the

liquid will become clear. Upon heating still higher the connective tissues begin to be changed into gelatine and are partially dissolved out while the insoluble albuminoids are coagulated. The longer the action of the hot water continues, the tougher and more tasteless the meat becomes, but the better the broth.

If a piece of meat is plunged into boiling water or very hot fat, the albumin on the entire surface of the meat is quickly coagulated, and the enveloping crust thus formed resists the dissolving action of water and prevents the escape of the juices and flavoring matters. Thus cooked, the meat retains most of its flavoring matter and has the desired meaty taste. The resulting broth is correspondingly poor.

In broiling steak an intense heat should be applied in order to coagulate the albumin and stop the pores, and thus prevent the escape of the juices. In roasting the meat should be exposed to an intense heat at first by placing it in a hot oven. This is done to coagulate the albumin, and thus prevent the escape of the juices. For a large roast, after the albumin on the outside has been coagulated, the heat in the oven may be reduced and the roast basted every 15 minutes. The smaller the roast the hotter the oven should be to quickly coagulate the albumin on the outside and prevent the interior from drying up.

As soon as meat is brought into the house, take it out of the wrapping paper, wipe it with a damp cloth, cut out any part discolored by a meat hook and set away in a cool place.

THE BEEF ANIMAL

The animal is divided into two parts cut along the backbone. Each part is called a side of beef.

The second division is between the ribs and the loin, the ribs being left on the fore part, called respectively the fore and hind quarter.

CUTS OF THE FORE QUARTER

Parts	
Chuck.....	steak roast soup
Set of ribs.....	3 cuts— for roasts
Brisket.....	corning Hamburg steak stews
Shoulder.....	dried beef stews
Shin.....	soup

CUTS OF THE HIND QUARTER

Porterhouse.....	steaks
Tenderloin.....	fillet steak
Sirloin.....	steak—flat bone steak—round bone steak—hip bone
Rump.....	roast stew steak
Round.....	steak stew
Flank.....	steak stuffed and roasted
Leg	
Shank.....	soup

MISCELLANEOUS CUTS

Head.....	mince meat
Neck.....	mince meat Hamburg steak
Brains.....	stewed sauteed
Tongue.....	boiled pickled
Heart.....	stuffed braised
Sweetbreads.....	fricasseed braised
Tripe.....	stewed pickled
Tail.....	soup

The flavor of the meat depends on the age, activity, and sex of the animal and on the part from which it is taken.

LESSON 26

ROAST BEEF

1. Wipe with a damp cloth, place in a pan. If a rib roast, with the ribs up. Rub with salt and dredge meat and pan with flour.

2. Place in a hot oven until the surface is seared. After the flour has browned, reduce the heat and add 1c of boiling water.

3. Baste every 10 minutes.

Time required, 15 minutes for every pound.

Note — When the meat is about half done, turn it over to brown the other side.

ROAST BEEF GRAVY

1. Remove some of the fat from the pan, leaving 4T.

2. Add 4T flour, stir until smooth and well browned. Add gradually 1 1/2c of boiling water. Cook 5 minutes. Season with salt and pepper.

FRANCONIAN POTATOES

1. Prepare as for boiled potatoes and parboil 10 minutes. Drain and place in the pan in which the meat is roasting.

2. Bake until soft, basting with the fat in the pan. Time, 45 minutes.

Note.— Sweet potatoes may be prepared in the same way.

MUTTON CHOPS

Kinds of Chops —

1. Rib chop, taken from the rib.

2. Loin chop, taken from the loin.

3. Shoulder chop, taken from the fore quarter.

4. French chop, a rib chop which has had the meat scraped and removed from the bone.

5. German chop, bone is scraped and the meat retained.

6. Rosette, the bone has been removed, meat formed in a circle and held together with a skewer.

PAN BROILED CHOPS

1. Heat frying pan smoking hot. Place chop upon it and turn every few seconds until done, using a knife and fork so as not to pierce the meat.

2. Time required about 8 minutes.

3. Sprinkle with salt, and dot with butter. Place frill on bone.

HOW TO MAKE FRILLS

Fold paper lengthwise, cut from folded end to within $\frac{1}{2}$ inch of edges, in narrow strips.

Open and fold back, placing edges together.

Use to wrap around bones of chops or fowls. Fasten with white of egg, or library paste.

LESSON 27

BEEF STEW AND DUMPLINGS

1. Wipe and cut 3lb of meat from the fore quarter. Place in a kettie, add water just below the boiling point.
2. Cook slowly until tender, adding salt at the end of the first hour.
3. After cooking one hour, add 1c carrot, cut in cubes; 1c turnip, cut in cubes; 1 onion, cut in slices.
4. One-half hour before serving, add potatoes that are to be used for the meal.

DUMPLINGS

Materials -

- 2c flour
- 4t baking powder
- 3 $\frac{1}{2}$ c milk
- 2t butter
- 1 $\frac{1}{2}$ t salt

Method

1. Mix and sift the dry ingredients. Work in the butter.
2. Add milk until of the consistency to roll, roll to $\frac{1}{2}$ inch thickness, cut with biscuit cutter, place in a steamer over the stew and steam 12 minutes without removing the cover.

Note. - If more liquor is used the dumplings may be dropped on the stew in spoonfuls. In this case remove some of the liquid before steaming the dumplings.

PAN BROILED MEAT CAKES

Materials

- 1lb ground beef
- $\frac{1}{2}$ onion, chopped fine
- 2 eggs, slightly beaten
- salt and pepper

Method -

Mix the ingredients well. Have frying pan smoking hot, form mixture into round flat cakes. Broil quickly, first on one side then on the other. Use spatula to turn the cakes, to avoid piercing them.

FARMERS' STEW

Pound flour into both sides of a round steak, using as much as the meat will take up. This may be done with a meat pounder

or with the edge of a heavy plate. Saute quickly in a hot frying pan; then add water enough to cover it. Cover the frying pan very tightly so that the steam cannot escape and allow the meat to simmer for two hours, or until tender. One advantage of this dish is that ordinarily it is ready to serve when the meat is done, as the gravy is already thickened.

LESSON 28

BEEF CROQUETTES

Materials

- 2c cold ground beef
- $\frac{1}{2}$ c cracker crumbs
- 1 egg
- $\frac{1}{2}$ c cooked tomato
- Salt and pepper
- Stock to moisten (if tomato is not used)

Method

- 1 Mix all ingredients. Shape, roll in beaten egg, and in bread crumbs.
- 2 Fry until well browned on all sides, using either a well greased frying pan or in deep fat.
- 3 Serve with tomato sauce or plain.

TOMATO SAUCE

Materials

- $\frac{1}{2}$ can tomatoes, or
- $\frac{1}{2}$ c stewed tomatoes
- 1 slice onion
- 3T butter
- 3T flour
- $\frac{1}{4}$ t salt
- $\frac{1}{8}$ t pepper

Method

- 1 Cook onion with tomato 15 minutes, rub through a strainer, and add to butter and flour (to which seasonings have been added) rubbed together.
- 2 If tomatoes are very acid, add a few grains of soda.

CASSEROLE OF RICE AND MEAT

1. Line a mold, slightly greased, with cooked rice.
2. Fill center with 2c cold finely chopped cooked meat, seasoned with salt, pepper, cayenne, celery salt, onion juice and lemon juice.
3. Add $\frac{1}{4}$ c bread crumbs, 1 egg slightly beaten, and enough hot stock or water to moisten.
4. Cover meat with rice, cover rice with buttered paper to keep out moisture while steaming, and steam 45 minutes, or bake in a pan containing water, and see that baking dish is well covered. A casserole is preferable.
5. Serve on dish surrounded with tomato sauce.

Note. Veal, mutton, or chicken may be used in the same way.

COTTAGE PIE

1. Cover bottom of greased baking dish with hot mashed potato, add a thick layer of roast beef cut in small pieces and seasoned and moistened with gravy or milk.
2. Cover with a layer of mashed potato and bake in a hot oven until slightly brown on top.

LESSON 29

FISH

As ordinarily used, the term fish includes, besides the fish proper, many other water animals, as oysters, clams, lobsters, crawfish, crabs, shrimps, turtle, and terrapin.

Fish meat, with but few exceptions, is less stimulating and nourishing than meat of other animals, but is usually easier of digestion.

The muscles of fish have large fibers and little connective tissue. It is this which makes the fish break so easily.

The flesh of fish containing little fat, and that mostly in the liver, is white. Fat is more abundant in the dark fleshed fish and is found throughout the body.

To obtain from fish its greatest value and flavor, it should be eaten fresh and in season.

Fish should be carefully cooked. If underdone, it is not eatable; if cooked too long, it loses its flavor and becomes dry. If it is to be cooked in water, a little lemon juice or vinegar hardens the fish, thus helping to keep it whole.

Fish is commonly boiled, steamed, broiled, baked, or may be combined with other materials in some made dish. In most cases fats and carbohydrates in the form of butter, flour or other material are added to fish when cooked and thus the deficiency in fuel ingredients is made good.

Broiled or steamed fish is often accompanied by a sauce made from butter, eggs, etc. Baked fish is often filled with a dressing and may also be accompanied by a sauce. The dressing being made of a bread, butter, etc., contains fats and carbohydrates.

Fish belongs to the protein foods and should be served with such foods as bread, butter, potatoes, green vegetables, and fruits. By adding materials in cooking and by serving others with the cooked product, the protein of the fish is supplemented by the necessary fats and carbohydrates.

Fish builds and repairs muscular tissues and is digested principally in the stomach.

TO DETERMINE FRESHNESS OF FISH

When fresh, the eyes are bright, the gills are red, the flesh firm and odorless.

When fish comes from the market, it should be taken from the paper at once. It should then be washed inside and out with a cloth wet in cold salt water and dried with a clean cloth kept for the purpose. Do not allow fish to soak in water. Put it in

the refrigerator on the ice with the skin side down, but not in the same compartment with butter, milk, or other foods that absorb flavors.

TO CLEAN FISH

1. Cut open along the under side full length, and remove the entrails.
2. Remove scales by beginning at the tail and scraping toward the head, using a dull knife.
3. Wash quickly inside and out.

BOILED FISH

1. Wrap fish in cheesecloth and drop in boiling water to which has been added the juice of one lemon, or 1T vinegar.
2. Time for cooking depends on the amount of surface exposed. Usually for medium size from 20 to 30 minutes.
3. Drain well, remove from the cloth, garnish with parsley, lemon, or egg sauce.

Note.—Vinegar coagulates the albumin and holds the fish in shape.

FISH BALLS

Materials—

- 1c salt codfish
- 1 heaping c potato
- 2 eggs
- $\frac{1}{2}$ T butter
- pepper to taste

Method—

1. Wash fish in cold water. Pick in small pieces or cut with the scissors.
2. Wash, pare, and cut potato in uniform size before measuring.
3. Cook fish and potato in boiling water to cover until potatoes are soft. Drain through strainer, return to the kettle and mash thoroughly.
4. Add butter, eggs well beaten, and pepper. Beat with a fork until light.
5. Take up by spoonfuls, put in frying basket, fry one minute in deep fat. Drain on paper. Reheat fat after each frying.

SALMON CROQUETTES

Materials—

- 1c salmon, flaked

1c thick white sauce
salt and paprika
1T lemon juice
1T chopped parsley

Method—

- 1 Mix fish and sauce, add seasonings. Spread on a plate to cool.
- 2 Form into croquettes, egg and crumb, fry in deep fat, drain, garnish with parsley.

Note.—The mixture shaped in pyramids may be garnished with small paper frills made on toothpicks and inserted in the top.

TO SHAPE CROQUETTES

The most common way is to form a ball by rolling one rounded T of the mixture between the hands, then rolling on the board until desired length, and flattening the ends.

May also be formed in pyramids or shaped in any fancy form.

LESSON 30

FATS AND OILS

Fats and oils are found in both the vegetable and animal kingdoms.

Meats, milk, fish, and eggs are the principal sources of animal fat. Among the animal fats cream and butter are of first importance on account of their easy assimilation. Other examples are: The fat of meats, bone marrow, suet, lard, etc.

Marrow is the soft fat formed in the cavities of bones, especially the shin bones.

Beef suet is the hard fat which lies near the kidneys and loins. It is freed from membranes and chopped very fine and used as shortening in puddings, etc., to make them tender. It is also used mixed with lard for frying purposes.

Lard is the semi-solid fat obtained by melting and straining the fat from various portions of the body of the hog.

The principal animal oils are cod liver oil and oil found in the yolk of the egg.

Combinations of different fats as, cottolene, oleomargarine, snowdrift, etc., are used.

We know that fats and oils are alike greasy and that fat, by heating it, may be changed to oil.

Some fats are soft and oily, others firm and hard.

Fats are solid at ordinary temperature, while oils are liquid.

TO TRY OUT FAT

Cut the fat into small pieces and put into a pan in the oven or on top of the stove, with enough cold water to cover it, and simmer for several hours. When the fat is melted and nearly free from water, strain it, pressing to remove all of the fat.

• TO CLARIFY FAT

Melt the tried out fat, add to it a few slices of raw potato and heat slowly until it ceases to bubble. The potato absorbs some of the impurities; most of the rest sink to the bottom. Strain the fat through cheesecloth and let stand until solid.

•

FRYING

Frying is cooking in hot fat deep enough to cover the food, so that it may be crusted over at once; reheat the fat after each frying and do not fry in butter.

Of common fats butter is the worst for frying, suet from beef, veal, mutton, next better, drippings better still, and lard next. Olive oil is superior to any of these.

Before beginning to fry any article of food have a piece of brown paper cut to fit a dripping pan. When the article is fried, drain it and place it in the pan on the paper. The paper will absorb the fat.

If too many things are put in the fat at the same time they will be badly fried, because the temperature of the fat will quickly fall below the point necessary to fry properly.

For frying doughnuts and potatoes, fat should be hot enough to turn a piece of bread brown while you count 60. For fish balls and croquettes it should turn it brown while you count 40. All fried articles should be well drained and should not be piled on each other.

TO EGG AND CRUMB

Roll the article to be fried in fine bread crumbs, then dip in egg slightly beaten with 1T water, roll again in crumbs. If not perfectly coated, the article may crack.

TO PREPARE CRUMBS

Dry pieces of bread in the oven, roll and sift, or put through the meat grinder and sift. Put into fruit jars to be ready for use.

LESSON 31

TO SELECT A CHICKEN

Buy a chicken with firm flesh, yellow skin and legs. If young it will have soft, smooth legs, and tender skin; the lower part of the breast bone will be cartilage, soft and pliable. An abundance of pin feathers always indicates a young bird, while the presence of long hairs denotes age.

In a fowl the feet have become hard and dry, with coarse scales, and the cartilage at the end of the breast bone has ossified.

Poultry full grown have the best flavor and are good for roasting, fricassee, and stewing. Older ones make good soup or may be served boiled. Spring chicken should be broiled or fried.

TO CLEAN AND DRESS POULTRY

1. Remove hair and down by holding bird over flame, constantly turning it.
2. Draw out the pin feathers with a pointed knife.
3. Cut through the skin around the leg $1\frac{1}{2}$ inches below the knee joint, taking care not to cut the tendons. Place leg at

this cut over the edge of a board and press downward to snap the bone.

4. Take foot in right hand and pull off with the tendons.

5. Make an incision through the skin below the breast bone just large enough to admit the hand.

6. With hands remove the entrails, gizzard, heart, liver (giblets), being careful not to break the gall bladder.

7. Introduce first two fingers under skin of neck and remove the windpipe.

8. Remove the oil bag and wash by allowing cold water to run through it.

9. Wipe fowl inside and out.

TO CLEAN GIBLETS

1. Remove membrane with arteries and veins from the heart.

2. Separate gall bladder from the liver, cutting away everything of greenish color.

3. Cut fat and membrane from gizzard. Make gash through thickest part of gizzard and cut to inner lining. Turn outer part inside out, thus removing the inner sack.

TO TRUSS A FOWL

1. Draw thigh close to body and fasten ends of legs to tail.

2. Cut a piece of skin from end of neck to cover ends of drumsticks.

3. Place wings close to back, bending the tips backward.

4. Press the bird from the ends to make compact as possible, and tie if necessary with strings.

TO STUFF POULTRY

1. Put stuffing by spoonfuls in the fowl, using enough to fill the skin.

2. Be very careful not to fill too full, as stuffing swells when cooked.

3. Sew up gash using needle and string, tying every half inch.

TO CUT UP A FOWL

1. Singe, remove the pin feathers.

2. Cut off legs close to the body, then separate first and second joints.

3. Cut off wings.

4. Cut down from the breast bone to back bone, bend back and cut off.

5. Then cut through ribs to wing joint, bend back and cut off.
6. Wash pieces of chicken and giblets.

STUFFING FOR ROAST CHICKEN

Materials—

- 2c bread crumbs
- 1 c boiling water
- 2 slices of onion cut fine
- 2T butter
- 1t sage (if desired)
- salt and pepper

Method—

Mix the ingredients, let stand 1/2 hour. Stuff fowl as directed.

FRIED CHICKEN

1. Clean, singe, and cut in pieces for serving, two young chickens.
2. Plunge in cold water, drain but do not wipe.
3. Sprinkle with salt and pepper, and coat thickly with flour, having as much flour adhere to the chicken as possible.
4. Have 4T lard in frying pan smoking hot. Cook chicken in the fat until tender and well browned.

CREAM GRAVY

Materials—

- 3T flour
- 3T fat from the frying pan in which chicken was cooked.
- 1c milk
- Salt and pepper

Method—

1. Mix the flour and a little of the milk to make a pour batter.
2. Allow the fat in the pan to cool a little, add flour mixture, and thin with remaining milk, adding more milk if too thick.
3. Add salt and pepper.

LESSON 32

MILK

Cow's milk contains fat, albumin and another substance that is not coagulated by heat but is coagulated by vinegar. This substance is casein, a tissue builder. Dissolved in the whey is a little milk sugar and mineral matter.

Milk is seen to contain one or more of each kind of food stuffs, tissue building, heat giving, and strength giving, besides water and mineral matter. It is the natural food for all young mammalia during the period of their most rapid growth, for older people, however, it is not a well balanced food; 8 quarts daily would be required.

The greatest benefit is obtained from milk when taken alone at regular intervals between meals or before retiring. It should be sipped. Drink it slowly. Hot milk is often given to produce sleep.

When milk is taken rapidly it overpowers the digestion and makes the person very uncomfortable. The rennin in the stomach is a milk curdling ferment. If the milk is sipped, small curds are formed; if taken too rapidly, large, tough curds are formed, which are digested with difficulty.

The value of food depends as much upon how it is taken as upon its quality.

Meat and milk should not be served at the same time, as they are both protein foods and would overtax the digestion. It is not what we eat but what we digest that is true food.

When milk is allowed to stand for a few hours, the globules of fat which have been held in suspension throughout the liquor, rise to the top in the form of cream.

Butter is the fat of milk separated by churning. It forms an admirable fatty food if taken on bread or other foods not heated.

Butter is a wholesome fat, when fresh and sweet and becomes the cause of serious intestinal trouble when heated. Avoid foods cooked in butter.

Milk should be cooled quickly. Milk allowed to cool gradually will quickly sour.

SOURING OF MILK

The sour taste of milk is due to the presence of an acid. When milk is kept at the ordinary temperature more than a few hours, the sugar in it changes to lactic acid. This acid, like the acid in vinegar, coagulates the casein.

The change from sugar to lactic acid is caused by certain bacteria found floating in the air, which attack the lactose in the

milk, converting it into lactic acid; this in turn acts upon the casein (protein), and precipitates it, producing what is known as curd and whey. Whey contains water, salts, and some sugar.

TO SCALD MILK

Put the milk in the top of the double boiler having the water boiling in the under part. Cover and let stand over low fire until the milk around the edge has a beadlike appearance.

JUNKET

Materials--

- 2T sugar
- 1c milk
- $\frac{1}{4}$ junket tablet
- 1t cold water
- $\frac{1}{2}$ t vanilla

Method--

- 1 Heat milk till lukewarm (98°). Add sugar and flavoring.
- 2 When sugar is dissolved, add tablet which has been dissolved in the cold water.
- 3 Pour into cups at once, let stand quietly at room temperature till it stiffens.
- 4 Chill in the ice box, if desired cold. Serve with whipped cream, jelly, or preserves.

Note. Dr. Hansen's Junket Tablets are made from rennet obtained from the stomach of a calf.

COTTAGE CHEESE

Materials--

- 1c thick sour milk
- 1t cream
- Pinch of salt

Method--

- 1 Heat milk slowly till curd forms. Place in cheese-cloth to drain.
- 2 Work curd in a bowl with a spoon until fine.
- 3 Mix with cream, and salt and form in balls.

LESSON 33

CHEESE

Cheese is made chiefly from the milk of cows, though that of goats is sometimes used in making certain kinds. Cheese may be made from whole milk, from milk to which cream has been added, or from skimmed milk. Cheese is the curd of milk separated and pressed. The curd may be separated in two ways. The milk may be allowed to stand until it sours or a thick clabber is formed. It is then slightly heated, which separates the curd from the whey.

In the ordinary sweet curd cheese, the curd is separated by the action of rennet. The curd is then pressed to remove the whey. After pressure, the curd is set aside and kept at a favorable temperature to ripen, the time required varying from a short time to three or four years. New flavors are developed and the texture is altered during the ripening process. The ripening of cheese is due to the action of bacteria and moulds.

Cheese made from unskimmed milk is one-half fat.

Skimmed milk cheese is sometimes "filled" by having lard or other cheap fat added to it. Filled cheese is greasy when warm and does not keep well.

Cheese is a protein or nitrogenous food. It contains much nourishment in small bulk—a concentrated food. As it is a protein food it may take the place of meat and should be eaten in small quantities with such foods as bread, rice, macaroni, etc.

One pound of cheese contains as much nourishment as two pounds of meat. It is digested in the stomach.

CHEESE RAMAKIN

Materials—

- 8T grated cheese
- $\frac{1}{2}$ c milk
- Yolks of 2 eggs
- 2T butter
- 1c bread crumbs
- Whites of 2 eggs
- Salt and paprika

Method—

- 1 Put the bread and milk on to cook. Stir and boil until smooth.
- 2 Add cheese and butter, stir until the cheese is melted.
- 3 Remove from the fire, add seasonings and the yolks of the eggs.

- 4 Beat the whites to a stiff froth and fold them in carefully.
- 5 Pour into a greased baking dish or individual ramakin dishes. Set the baking dish or ramakin dishes in a pan of hot water and cook in a hot oven until well puffed up and brown.

Note.—It will take about 15 minutes for the ramakin in the individual dishes, about $\frac{1}{2}$ hour in the baking dish. Serve at once.

CHEESE STRAWS

Materials—

- 1c grated cheese
- 1c flour
- 2T melted butter
- Salt and cayenne pepper
- Cold water to make a stiff dough

Method—

- 1 Mix cheese flour and seasonings. Add butter and water to make a stiff dough.
- 2 Roll until thin, cut in long narrow strips. Bake in a moderate oven until brown. (Do not place strips too close together.)
- 3 Avoid burning as this ruins the flavor. Serve with salad course.

WELSH RAREBIT

Materials—

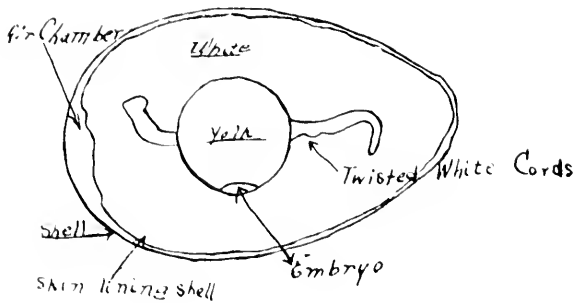
- 1T butter
- 1c cheese, cut in small pieces
- $\frac{1}{4}$ t mustard
- Salt and pepper
- 1T vinegar
- $\frac{1}{2}$ c milk
- 1 egg

Method—

- 1 Mix beaten eggs and seasonings.
- 2 Put butter in chafing dish or double boiler, and when melted add cheese.
- 3 As cheese melts add milk slowly while stirring.
- 4 When well blended add egg mixture. Cook until smooth.
- 5 Serve on crackers or toast.

Note.—A rarebit should be smooth and of a creamy consistency.

LESSON 34



EGGS

The eggs of many birds, both wild and domestic, are used as food. Hen's eggs are most common, although the eggs of ducks, geese, etc., are used.

Other eggs besides those of birds are sometimes eaten, viz: Turtle eggs and the eggs of fish are salted and sold under the name of caviare.

In general the term eggs, when used in connection with food topics, refers to the eggs of birds and domestic poultry.

The eggs of domestic fowls are not highly colored; those of hens vary from a white to a more or less brown tone, the eggs from a particular breed being generally of the same color.

The eggs of ducks are bluish white; those of geese are commonly white; the eggs of the guinea fowl are light brown, more or less mottled with a deeper shade; the eggs of turkeys are usually speckled with a yellowish brown. Any special coloring of eggs of wild birds is explained as a protective measure, which has been developed to render the eggs inconspicuous in their normal surroundings and therefore less easily found by their enemies.

The shell of an egg is porous and consists almost entirely of carbonate of lime.

A fertile egg contains an embryo or germ and is at the same time a storehouse of material for the growth and development of the young chick, until it has reached such a stage that life is possible outside the shell.

The embryo is situated quite near the yolk, which furnishes the nutritive material for its early development, the white being used later on.

Since in all cases the egg is designed to furnish the sole source of material for growth and development of the young individual for a considerable time, it is evident that it must contain all the elements required; that is, it must be a perfect food for the purpose intended.

It must contain protein, mineral matter and water, for these are absolutely necessary for the making of muscle, blood, bone, etc. It needs fat, for that is the most compact form in which heat giving material can be stored. Carbohydrates are present in such small quantities that the figures are not given.

Milk and eggs are often spoken of as perfect foods. It is true that they contain all the required elements but the elements are not in the right proportion for the sole nourishment of an adult individual.

The most important foodstuff in egg is albumin. Albumin is a sticky substance found in both the white and yolk. The white is nearly pure albumin and water; the yolk contains fat in the form of oil. Eggs also contain a quantity of valuable mineral salts. One of the constituents of egg albumin is sulphur.

Albumin is a tissue builder and contains nitrogen, the element essential to tissue building.

The lack of carbohydrates in eggs explains the combination of eggs with food materials containing them, as flour, sugar, etc.

When eggs, meat, fish, cheese, or other similar foods, rich in protein, are eaten bread, butter, potatoes, rice, etc., are usually served at the same time.

The solidifying of albumin is called coagulation.

The firm coagulation explains the use of egg white for clarifying coffee, soup, or other liquids. The albumin which is mixed with the liquid before boiling, coagulates, and incloses the floating particles, leaving the liquid clear.

HOW TO TELL A FRESH EGG

A fresh egg has a thick, rough shell.

1. Hold the egg between your eye and the light, if clear, it is fresh, if cloudy it is stale.

2. Drop the egg into cold water. If it sinks, it is fresh; if it floats, it is stale.

3. Shake the egg, holding it near your ear. If its contents move, it is somewhat stale; if they rattle, it is spoiled.

CARE OF EGGS

Wash the eggs with a damp cloth when they come into the house. Keep them in a cool dry place.

If part of an egg has been used the remaining portion may be put in a cup and covered with a damp paper or cloth to prevent its drying. The shell may be saved to clear the coffee. It is the albumin that sticks to the shells, not the shells, that clear the coffee.

The methods of serving eggs alone or in combination with other food materials are very numerous. Cooked in various ways

they are a favorite animal food, taking the place of meat to a certain extent. They are also used in making cakes, muffins, custards, etc., to improve their flavor and texture, and also to leaven them.

The white of the egg consists of millions of tiny cells filled with a clear, colorless, sticky liquid known as albumin. The walls of these cells are exceedingly delicate membranes, which are ruptured or broken when the egg is beaten, allowing the contents to escape. The beaten white incloses air in small bubbles which become distributed throughout the mass of dough in mixing. The heat of cooking expands the air and makes the walls of the bubbles firm, so that the porous structure is retained. Popovers is a familiar example of a mixture leavened with eggs.

LESSON 35

USES OF EGGS

1. Food—Substitute for meat.
2. Leaven—Popovers. Sponge Cake.
3. Thickening Agent—Custards.
4. Clearing or Settling Agent—Coffee. Soup Stock.
5. Garnish—Salads.
6. Coloring—Cakes.

OMELETS

1. Never use more than four eggs at one time.
2. Let the guests wait for the omelet, not the omelet for the guests.

There are two kinds of omelets: Foamy, creamy.

A foamy omelet has the air beaten in so as to expand the omelet.

A creamy omelet, moisture in the egg with a small amount of air inclosed in stirring, are all that are needed.

FOAMY OMELET

Materials—

- 4 eggs
- $\frac{1}{2}$ t salt
- Few grains of pepper
- 4T hot water
- 1T butter

Method—

1. Separate the yolks from the whites. Beat yolks until thick and lemon colored.
2. Add salt, pepper, and water.
3. Beat whites until stiff, fold into the yolks until the latter is absorbed.
4. Heat omelet pan. Melt butter in pan, spread it over sides and bottom.
5. Pour egg mixture into pan, spread evenly.
6. Cook slowly until a delicate brown on the under side.
7. When well puffed, place pan in oven to dry, not brown, the top, with the oven door open.
8. Fold and turn omelet on hot platter.

Note.—Omelet is done when it does not adhere to the finger when pressed.

TO FOLD AND TURN AN OMELET

1. Hold pan in the left hand. With a case knife make two half-inch incisions opposite each other at right angles to the handle.

2. Place knife under part of omelet nearest the handle, tip pan to nearly a vertical position.
3. By carefully coaxing the omelet with the knife it will fold and turn out without breaking.

LESSON 36

EGGS A LA GOLDENROD

Materials—

- 4 hard boiled eggs
- 1c White Sauce No. 2
- 4 slices of toast

Method—

- 1 Boil eggs 30 minutes. Separate yolks from whites. Chop whites fine and add them to the White Sauce.
- 2 Arrange pieces of toast on platter, pour over them the sauce.
- 3 Force yolks through a strainer and sprinkle over the top. Add a dash of paprika.

BOILED EGGS

Have ready a sauce pan containing boiling water. Carefully put in with a spoon the number of eggs desired, covering them with water. If for "soft-boiled," remove pan to the back of the stove where the water will not boil, and allow to stand 6 minutes. If for "hard-boiled," let boil slowly 30 to 45 minutes.

In using hard-boiled eggs for making other dishes, when taken from the hot water they should be plunged into cold water to prevent, if possible, discoloration of yolks, and also that the shells may be removed more readily.

PRUNE WHIP

Materials—

- $1\frac{3}{4}$ lb prunes
- 5 eggs (whites)
- $\frac{1}{2}$ c sugar
- $\frac{1}{2}$ t lemon juice

Method—

- 1 Look over and wash prunes. Soak several hours in cold water to cover.
- 2 Cook in the same water until soft. Remove stones and put prunes through a strainer.
- 3 Add sugar and cook 5 minutes, or until the consistency of marmalade
- 4 Beat whites until stiff. Fold in the cold prune mixture gradually, then the lemon juice.
- 5 Pile lightly on slightly greased pudding dish, bake in a slow oven 20 minutes. Serve at once.

BAKED CUSTARD

Materials—

- 4c scalded milk
- 4 eggs
- $\frac{1}{2}$ c sugar
- Pinch of salt
- Few gratings of nutmeg

Method—

- 1 Beat eggs slightly, add sugar and salt, pour on slowly scalded milk.
- 2 Strain into a buttered mold, set in a pan of hot water, sprinkle with nutmeg, and bake in a slow oven until firm, which may be readily determined by running a silver knife through custard; if knife comes out clean, custard is done.
- 3 During baking, care must be taken that water surrounding the mold does not boil, or the custard will separate. Always bear in mind that eggs and milk in combination must be cooked at a low temperature.

LESSON 37

SALADS

Salads are dainty and appetizing dishes prepared from meat, fish, vegetables, or fruit combined with fat in some form and acid in some form.

Usually used as a refreshing, appetizing dish to stimulate the appetite rather than to furnish nutrients for the body, although vegetables and fruit salads being especially rich in mineral salts and an abundance of water are of great value in the diet.

Salads are classified as to—

1. Composition or basis:
 - Meat
 - Fish
 - Fruit
 - Vegetable
2. According to food principles:
 - Heavy
 - Light

SALAD DRESSING

1. Mayonnaise is used with—
 - Meat
 - Fish
2. French Dressing is used with—
 - Green vegetables
 - Fruits

But this rule is not invariable.

RULES FOR SERVING SALADS

A meat salad should not be served with a heavy dinner.

Either alone or in combination should be used—

Lettuce	Tomato
Cucumbers	Grape Fruit
Cress	Grape
Asparagus	Pineapple

Have the salad course at dinner dainty and simple. Do not unite too many foods. Do not chop materials too fine.

RULES FOR PREPARATION

Utmost care should be used in preparing fruit and vegetables for a salad, as their daintiness and agreeability are their chief characteristics.

All leaf vegetables, as lettuce, should be thoroughly washed and dried and all material should be whole.

The principal dressings are—

French

Mayonnaise

Boiled

FRENCH DRESSING

Materials—

$\frac{1}{2}$ t salt

$\frac{1}{4}$ t pepper or paprika

2T vinegar

4T olive oil

Method—

- 1 Mix ingredients in order given, and stir until well blended.
- 2 Surround bowl containing mixture with ice water, and beat mixture until of a creamy consistency.
- 3 Should be made immediately before serving.

MAYONNAISE DRESSING

Materials—

1t mustard

1t salt

1t sugar

Few grains of cayenne

1 egg yolk

4T acid, vinegar, or lemon juice

1 $\frac{1}{2}$ c olive oil

Method—

- 1 Mix dry ingredients. Add egg yolk and when well blended add $\frac{1}{2}$ t acid.
- 2 Add oil drop by drop while stirring.
- 3 As mixture thickens, thin with acid.
- 4 Add oil and acid alternately, as adding oil thickens and acid thins. If oil is added too rapidly the proper consistency cannot be acquired.

If Mixture curdles or separates take a fresh egg yolk and add the curdled mixture to it slowly.

Have all materials as cold as possible.

In mixing use a wooden spoon, Dover beater, silver spoon, or silver fork.

This dressing should be thick enough to hold its shape.

BOILED DRESSING

Materials —

- $\frac{1}{2}$ t salt
- $\frac{1}{2}$ t mustard
- 1T sugar
- Few grains cayenne
- $\frac{1}{2}$ T flour
- 2 egg yolks
- 2T melted butter
- $\frac{3}{4}$ c milk
- $\frac{1}{4}$ c vinegar

Method—

- 1 Mix dry ingredients, add egg yolks slightly beaten, butter, milk, and vinegar very slowly. Cook over boiling water until mixture thickens.
- 2 If any lumps appear, strain the mixture.

LESSON 38

POTATO SALAD

Materials—

- 4c cold diced potatoes
- $\frac{1}{2}$ c boiled dressing
- $\frac{1}{2}$ c finely cut celery
- $\frac{1}{2}$ c nut meats (pecans)

Method—

- 1 Mix all together, arrange on lettuce leaf.
- 2 Serve with cheese straws or Saratoga flakes.

TOMATO SALAD

1. Peel tomatoes by dipping them in boiling water for an instant, then in cold water. The skins will rub right off.
2. Remove a thin slice from top of each, take out the seed and some pulp. Sprinkle inside with salt, invert, and let stand until salad is prepared.
3. Fill with chopped celery, cucumber, and some of the tomato pulp mixed with French dressing.
4. Place on lettuce leaf, garnish top with latticed cucumber and mayonnaise.

COMBINATION SALAD

Materials—

- 1 can tiny string beans
- 1 onion
- 3 stalks celery
- French dressing

Method—

- 1 Place beans on a lettuce leaf, mince onion, cut celery in small pieces, add to beans.
- 2 Marinate with French dressing. Serve at once.

CHICKEN SALAD

Materials—

- 2c cold boiled or roast chicken cut in dice
- $\frac{1}{2}$ c celery
- 2c apple, cut in cubes
- $\frac{1}{2}$ c nuts
- Boiled dressing

Method—

- 1 Have all materials ready to put together except the apples.
- 2 Just before serving, cut the apples, combine the materials, serve on lettuce leaves.

LESSON 39

GELATINE

Gelatine exists in the muscles, skin, cartilage, bone, tendon, ligament, or membrane of animals. In its raw state it is termed collagen. By boiling in water the collagen of connective tissue is dissolved and converted into gelatine. Collagen is a transparent, tasteless substance.

After the selected parts of the calf have been subjected to their various treatments of baths and boiling, the product is run out on to screens where it soon forms into what is known as sheet gelatine. This sheet gelatine may be of various thicknesses. Where it is to be granulated it is made very thin. The sheets are irregular in shape. After the drying period, it is broken and then ground. Gelatine is insoluble in cold water, soluble in hot water. If boiled, gelatine will not solidify on cooling.

LEMON JELLY

Materials—

- $\frac{1}{2}$ box of gelatine, or
- 2T granulated gelatine
- 1c sugar
- $\frac{1}{2}$ c cold water
- 2 $\frac{1}{2}$ c boiling water
- $\frac{1}{2}$ c lemon juice

Method—

- 1 Soak the gelatine 20 minutes in the $\frac{1}{2}$ c of cold water.
- 2 Dissolve in boiling water.
- 3 Strain, add sugar and lemon juice and stir until sugar is dissolved.
- 4 Turn into a cold, wet mold and let stand until firm. Serve with whipped cream.

JELLIED PRUNES

Materials—

- $\frac{1}{2}$ lb prunes
- 2c cold water
- 2T gelatine
- $\frac{1}{2}$ c cold water
- 1c sugar
- $\frac{1}{2}$ c lemon juice

Method—

- 1 Pick over and wash the prunes. Soak for several hours in the 2c of cold water, cook in the same water until soft.
- 2 Remove prunes, stone, and cut in quarters.
- 3 To the prune water add enough boiling water to make 2c.
- 4 Soak the gelatine in the 1/2c of cold water and add to the boiling mixture.
- 5 Add sugar and lemon juice. Strain, add prunes, pour into a mold and let stand several hours until hard. Serve with sweetened whipped cream.

BAVARIAN CREAM

Material—

- 1/2 lemon, grated rind, and juice
- 1/2c orange juice
- 1/2c sugar
- 2 eggs
- 1t granulated gelatine
- 1T cold water

Method

- 1 Mix lemon, orange juice, sugar, and yolks of eggs; stir vigorously over the fire until the mixture thickens.
- 2 Add gelatine which has been dissolved in the cold water.
- 3 Then pour over the whites of the eggs beaten stiff.
- 4 Set in a pan of ice water and beat until thick enough to hold its shape.
- 5 Turn into a mold lined with lady fingers, or serve in orange baskets.

ORANGE BASKETS

Cut two pieces from each orange, leaving what remains in shape of a basket with handle. Remove pulp from baskets and pieces, and keep baskets in ice water until ready to fill. From the juice make orange jelly or Bavarian Cream to fill the baskets.

ORANGE JELLY

Materials—

- 1/2 box gelatine, or
- 2T granulated gelatine
- 1/2c cold water
- 1/2c boiling water

1c sugar
1½c orange juice
3T lemon juice

Method—

Make same as lemon jelly.

LESSON 40

FROZEN DESSERTS

Frozen desserts include—

1. Water ices -Fruit juices, sweetened, diluted with water, and frozen.
2. Sherbet -Water ices to which gelatine or beaten egg whites are added.
3. Frappe -Water ices frozen to the consistency of mush.
4. Punch - Water ice to which has been added some form of liquor.
5. Sorbet- Frozen punch.

Creams -

1. Those frozen with stirring
 - (a) Philadelphia ice cream--plain cream sweetened, flavored, and frozen.
 - (b) Plain ice cream has custard for foundation to which is added thin cream and flavoring.
2. Those frozen without stirring, having whipped cream as a foundation
 - (a) Mousse--Whipped cream, syrup, and eggs.
 - (b) Parfait--Whipped cream, gelatine, uncooked eggs, or no eggs.
 - (c) Bisque - Parfait or mousse in individual molds.

TO PREPARE FROZEN DISHES

Required

Freezer
Ice bag (burlap or duck)
Heavy wooden mallet
Ice and barrel salt
Dish pan
Large spoon

Method

- 1 Scald can, fill with cold water until ready for use.
- 2 Crush ice by placing it in a bag and giving it a few blows with the mallet. Remove all coarse pieces.
- 3 Empty can, adjust the dasher, fill three-fourths full of the mixture to be frozen. Place carefully in wooden tub in groove. Put on the cover, adjust the top, trying crank to see that it fits.

- 4 Allow 3 measures of ice to 1 of salt. Mix ice and salt in pan before putting it in the freezer.
- 5 Pack firmly around the can using the handle of the mallet to force it down. Ice should come a little above the mixture in the can.
- 6 Turn crank slowly and steadily to expose as large a surface as possible to the ice and salt. When frozen to a mush turn more rapidly.
- 7 After the mixture is frozen, draw off the water, remove the dasher, and pack the cream solidly with a spoon. Put cork in opening of cover.
- 8 Repack the freezer, using 4 measures of ice to 1 of salt. Place carpet, newspaper, or burlap over the top and leave 3 or 4 hours to ripen.
- 9 When serving time comes remove the can and wipe carefully and place it in a vessel of cool water 1 minute.

LEMON ICE

Materials—

- 4c water
- 2c sugar
- $\frac{3}{4}$ c lemon juice
- Small piece of rind

Method—

- 1 Make a syrup by boiling the sugar and water 10 minutes with a small piece of the lemon rind.
- 2 Add fruit juice, cool, strain, and freeze.

ORANGE ICE

Materials—

- 4c water
- 2c sugar
- 2c orange juice
- $\frac{1}{4}$ c lemon juice
- Grated rind of two oranges

Method—

- 1 Make a syrup of the sugar and water. Add fruit juice and grated rind.
- 2 Cool and freeze.

APRICOT ICE

Materials—

- 1 can apricots
- 2 oranges
- 4 lemons
- 2c sugar
- 2c water

Method--

- 1 Make a syrup by boiling the sugar and water 10 minutes.
- 2 Put apricots through a colander, add lemon and orange juice.
- 3 Combine mixtures and freeze.
- 4 When half frozen add 1 pt cream beaten stiff.

Note.--If freezer is not three-fourths full, add syrup from the can or water unless cream is added. The syrup from the can may be used in either case.

STRAWBERRY ICE

Materials

- 2 boxes of berries
- 4 oranges
- 4 lemons
- 2c sugar
- 4c water

Method--

- 1 Make a syrup of the sugar and water.
- 2 Wash, stem, and mash the berries, and lemon and orange juice.
- 3 Add syrup which has cooled and freeze.

LESSON 41

VANILLA ICE CREAM

Materials

- 2c scalded milk
- 1T flour
- 1c sugar
- 2 eggs
- Pinch salt
- 2T vanilla
- 1 pt cream (if available)

Method—

- 1 Mix flour, sugar, and salt, add eggs slightly beaten, and milk gradually.
- 2 Cook over hot water 20 minutes, stirring constantly at first.
- 3 Should custard have a curdled appearance, it will disappear in freezing.
- 4 When cool add cream and flavoring. Strain and freeze.

Note. This cream may form a basis for fruit sundaes.

STRAWBERRY ICE CREAM

Materials

- 3 pints of cream
- 2 boxes of berries
- 3c sugar
- Few grains of salt

Method—

- 1 Wash and stem the berries, sprinkle with sugar, cover and let stand 2 hours. Mash and put through colander, add salt.
- 2 Freeze cream to the consistency of mush, add gradually the fruit juice, and finish freezing.

Note. The above vanilla ice cream may be used in place of the cream.

CHOCOLATE SAUCE

Materials

- 2 squares of Baker's chocolate
- 1 c water
- 2c powdered sugar

Method

- 1 Place chocolate in sauce pan, cover with water and boil 20 minutes.
- 2 When cool add sugar slowly while beating. If desired thicker add more sugar until consistency desired.

LESSON 42

TEA, COFFEE AND COCOA

TEA

Tea is made from the dried leaves of the tea plant. Tea is commonly classed as green and black. Both kinds come from the same shrub, but differ in age and method of curing.

Green tea is made from young leaves, which are prepared quickly, soon after gathering. Black tea is from older leaves, which undergo longer preparation and different processes.

There are two substances in tea, theine and tannin. Theine is a stimulating substance. Tannin is an astringent. The best brands of black tea are imported from India and Ceylon; the best green tea comes from China and Japan.

COFFEE

The coffee tree is native to Abyssinia, but is now grown in all tropical countries. The seeds of berries of coffee trees constitute the coffee of commerce. Each berry contains two seeds, with the exception of the male berry, which is a single round seed. Brazil produces about two-thirds of the coffee used. Central America, Java, and Arabia are also coffee centers. The coffee best suited to average taste is in the proportion of two parts Java to one part Mocha. Coffee, like tea, contains tannin, and its stimulating effect is due to caffeine and a volatile oil. The difference in flavor and odor between coffee and tea is caused by the difference in the aromatic oils they contain.

COCOA

Cocoa and chocolate are both prepared from the seeds of the cocoa bean. Cocoa beans are dried and roasted to develop the flavor; the outer covering is then removed; this covering makes cocoa shells, while the beans are broken into cocoa nibs. The prepared cocoa is made from the nibs and much of the fat known as cocoa butter is pressed out, the cocoa being powdered and frequently mixed with other substances, as sugar and starch. All the fat is left in the chocolate.

The stimulating substance in cocoa and chocolate is theobromine and is similar in its nature to theine and caffeine. Unlike tea and coffee, cocoa contains valuable food material. The cocoa bean is native of Mexico.

TEA

Put one scant teaspoonful of tea in a granite or earthen teapot and pour over it 1c of freshly boiling water. Let steep in a warm place for 3 to 5 minutes, but never allow tea to boil. Before making tea, scald the teapot.

BOILED COFFEE

Scald the coffeepot. Mix well together 4T coffee, 2t egg, and 2T cold water. Then pour over it 2c freshly boiling water. Let come to a boil and simmer from 3 to 5 minutes. Pour some of the coffee into a cup to free the spout of grounds. Return to the coffeepot and repeat, add 2T cold water to complete the process of clearing, and let stand in a warm place where it cannot boil for 10 minutes.

COCOA

Materials

- 1 1/2 T cocoa
- 2T sugar
- 1c boiling water
- 2c milk

Method—

- 1 Scald the milk.
- 2 Mix cocoa and sugar and dilute with 1/4c boiling water to make a smooth paste, add remaining water and boil 1 minute.
- 3 Turn into scalded milk and beat 2 minutes, using a Dover egg beater. Serve with a marshmallow on each cup.

LESSON 43

SANDWICHES

In preparing bread for sandwiches, cut slices as thinly as possible, and remove the crusts. If butter is used, cream the butter before spreading. Spread half the slices with mixture to be used for filling, cover with remaining pieces, and cut in squares, oblongs, or triangles. If sandwiches are shaped with a round or fancy cutter, bread should be shaped before spreading, that there may be no waste of butter. Sandwiches which are prepared several hours before serving-time may be kept fresh and moist by wrapping in a napkin wrung as dry as possible out of hot water, and keeping them in a cool place. Bread for sandwiches cuts better when a day old.

LETTUCE SANDWICHES

Put fresh, crisp lettuce leaves, washed and thoroughly dried, between thin slices of buttered bread, having a teaspoon of mayonnaise on each leaf.

EGG SANDWICHES

Chop finely the whites of hard-boiled eggs; force yolks through a strainer. Mix whites and yolks with mayonnaise to moisten, season with salt and pepper. Spread mixture between thin slices of bread.

PIMENTO CHEESE SANDWICHES

Put 2lb of American cheese, 1 can of pimentos, and 1/2 lb of nuts together through a food chopper. Pack in fruit jars until ready for use. When used, if not moist enough, add a little milk to make the consistency to spread. Spread mixture between thin slices of bread.

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